

Section 404(c) of the Clean Water Act and the History of State and Federal Efforts to Conserve the Kvichak and Nushagak Drainages of Alaska

Geoffrey Y. Parker[†]

The Kvichak and Nushagak river drainages of Bristol Bay in southwest Alaska are major contributors to the world's largest commercial salmon fishery, offer world-class sport fishing and hunting, and provide important subsistence foods for local residents. For forty-five years, the state and federal governments have sought to balance conservation and development in these drainages, as the land ownership, once nearly all federal, evolved into a fragmented pattern of state, federal and Native ownership, where fish and wildlife ignore such distinctions. Now, the potential that metallic sulfide deposits on state land in these drainages may be mined has prompted tribes, commercial fishing organizations, and many others to petition the U.S. Environmental Protection Agency (EPA) to commence a public process under Section 404(c) of the Clean Water Act to determine whether to restrict or prohibit the discharge of dredged or fill material, including mine wastes, into waters of the United States, including wetlands, before permits to do so are sought. In response, EPA has begun a scientific assessment of the watersheds to determine whether to invoke Section 404(c). This article demonstrates that EPA's potential use of Section 404(c) is consistent with most of the history of state and federal efforts to balance conservation and development in these drainages, offers a perspective on that history, and concludes that use of Section 404(c) is one of the few opportunities in this history for government to conserve these drainages across property boundaries.

[†] Geoffrey Y. Parker, B.A. Dartmouth College, 1972, J.D. Georgetown University Law Center, 1980, practices law in Anchorage, Alaska. He has worked for thirty years on public land and fish and wildlife issues in Alaska, including in the Bristol Bay drainages. He is co-counsel to six federally recognized tribes which filed the initial petition to EPA that it commence a public process under Section 404(c) of the Clean Water Act with respect to potential metallic sulfide mining in the Kvichak and Nushagak drainages, and co-counsel in representing the same six tribes and commercial and sport fishing organizations in litigation challenging state actions related to the State's 2005 Bristol Bay Area Plan. This article reflects his views, and not necessarily those of any client.

TABLE OF CONTENTS

I. History of Federal and State Conservation Efforts Involving the Kvichak and Nushagak Drainages	225
A. From 1967 to 1971, when the Land in the Bristol Bay Drainages Was Federally Owned, the Alaska State Government Supported Federal Efforts to Manage Uplands to Protect Fish.....	226
B. From 1971 to 2005, as Land Ownership Fragmented Due to the Statehood Act, ANCSA, and ANILCA, the State and Federal Governments Adopted Measures to Manage Uplands in the Bristol Bay Drainages to Protect Fisheries, but Cooperative Efforts Across Property Boundaries Failed	235
1. In 1971, ANCSA Resolved Native Land Claims, Complicates Land Management for Fish and Wildlife that Traverse Property Boundaries, and Prompted Further State and Federal Efforts to Conserve the Kvichak and Nushagak Drainages	235
2. In 1972, While Federal Legislation Proposed a Bristol Bay National Wildlife Refuge, the Alaska Legislature Designates State-Owned Beds of Navigable Waters as the Bristol Bay Fisheries Reserve	236
3. In 1973, the Department of the Interior Proposed an Iliamna National Resource Range.....	237
4. In 1976, Congress and the Alaska Legislature Ratify the Cook Inlet Land Exchange by Which the State Acquired Federal Land in the Kvichak and Nushagak Drainages, Including Where the Pebble Claims Are Now Located, to Protect Fish.....	240
5. In 1978, the Alaska Legislature Enacts Comprehensive Land Use Planning Legislation for State Lands, and Establishes Wood-Tikchik State Park	245
6. From 1977 to 1980, Congress Considered and Enacted the Alaska National Interest Lands Conservation Act, Which Establishes the Bristol Bay Cooperative Region	249
7. From 1981 to 1984, the State and Federal Governments, and Local Interests, Tried Cooperative Land Use Planning Within the Bristol Bay Cooperative Planning Region, Progressed Almost to Completion, but Ultimately Failed	254
8. From 1984 to 2005, the State's 1984 Bristol Bay Area Plan Gave Primary Recognition to Fish and Wildlife and Public Uses of Them by Classifying all Twelve Million Acres of State Uplands and Beds of Freshwaters as Habitat	255

9. In 2000, the Alaska Board of Fisheries Adopts a Sustainable Salmon Management Policy that Addresses Habitat, Establishes a “Precautionary Approach” to Scientific Uncertainty, and Guides the Board’s Interaction with Other Agencies	259
C. From 2005 to Present, DNR’s 2005 Bristol Bay Area Plan Departs from the State’s Long History of Giving Primary Recognition to Managing Uplands to Protect Fish and Fisheries	261
II. A Perspective on this History	267
A. Balancing Conservation and Development: A Common Interest in Managing Uplands to Conserve Fish Habitat	268
B. Resolving Issues Raised by Metallic Sulfide Mines and Fragmented Land Ownership	271
III. Conclusion	278

INTRODUCTION

The Kvichak and Nushagak river drainages of southwest Alaska produce some of the largest salmon runs in the world.¹ The state and federal governments have long recognized that the fisheries these drainages produce are important nationally, internationally, and locally. Since 1967, both levels of government, and others, have pursued many efforts to conserve fish habitat in these drainages. Now, the potential that massive, low-grade, metallic sulfide deposits in the drainages may be mined for copper, gold, and other metals has raised the question of whether such mines can occur without harm to fish habitat and these fisheries. Metallic sulfide mines and their wastes create risks of acid mine drainage, which can dissolve metals and make waters containing them toxic to fish and aquatic life.² After closure, such mines and their tailing facilities can require perpetual monitoring and care.³

1. The Bristol Bay drainages of southwest Alaska produce the largest sockeye salmon commercial fishery in the world, and historically the Kvichak (pronounced KWEE-jak) River watershed has been the largest producer of sockeye salmon. See LOWELL F. FAIR, ALASKA DEP’T OF FISH & GAME, 10 ALASKA FISHERY RES. BULL. NO. 95, CRITICAL ELEMENTS OF KVICHAK RIVER SOCKEYE SALMON MANAGEMENT (2003), available at <http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/fairv10n2.pdf>. The Nushagak (pronounced NUSH-a-gak) River watershed is the largest producer of the other four (Chinook, chum, coho, and pink) Pacific salmon species in the Bristol Bay drainages. R. ERIC MINARD, ALASKA DEP’T OF FISH & GAME, 1 FISHERY DATA SERIES NO. 15, EFFORT AND CATCH STATISTICS FOR THE CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) SPORT FISHERY IN THE LOWER NUSHAGAK RIVER, 1986, (Oct. 1987), available at <http://www.sf.adfg.state.ak.us/FedAidPDFs/fds-015.pdf>.

2. OFFICE OF SOLID WASTE, U.S. ENVTL. PROT. AGENCY, EPA No. 530-R-94-036, TECHNICAL DOCUMENT: ACID MINE DRAINAGE PREDICTION 2, 4 (Dec. 1994) [hereinafter EPA, ACID MINE DRAINAGE PREDICTION], available at <http://www.epa.gov/wastes/nonhaz/industrial/special/mining/techdocs/amd.pdf>. See generally CAROL ANN WOODY, COPPER: EFFECTS ON FRESHWATER FOOD

One of the deposits is the Pebble deposit, on state land, at the hydrological divide between Upper Talarik Creek, in the Kvichak River drainage, and Kaktuli River, in the Nushagak River drainage.⁴ The Pebble Limited Partnership⁵ (PLP) asserts that it expects to apply in late 2012 or 2013 for government permits to develop Pebble mine,⁶ at mining claims staked on the deposit. The permits would include those issued by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act⁷ to allow discharge of dredged or fill material into navigable waters, to construct dams, tailings facilities, pipelines, roads and other facilities of the mine.⁸ If developed, Pebble mine could be one of the largest open pit and underground mines in North America, and could leave as much as 10 billion tons of mine wastes on public lands forever.⁹ Several of the deposits in the vicinity lie to the south-southwest of the Pebble deposit and drain southward into Iliamna Lake.¹⁰

On February 7, 2011, the U.S. Environmental Protection Agency (EPA) announced that it would undertake a scientific assessment of the Kvichak and Nushagak watersheds to better understand how large-scale mining of metallic sulfide deposits may affect water quality and the salmon fisheries of Bristol Bay and its drainages. EPA describes these fisheries as “an extraordinary salmon resource for the United States.”¹¹

CHAINS AND SALMON: A REVIEW (2007), available at <http://fish4thefuture.com/pdfs/Summary%20WoodyReview%20-%20Copper%20Effects%20to%20Fish%20092107.pdf>.

3. EPA, ACID MINE DRAINAGE PREDICTION, *supra* note 2, at 2.

4. See *infra* Maps 1–6, pp. 227, 238, 250, 251, 256, 262.

5. Press Release, Northern Dynasty Minerals, Ltd. (NDM), Northern Dynasty & Anglo American Establish 50:50 Partnership to Advance Pebble Project to Production (July 31, 2007), available at http://www.northerndynastyminerals.com/ndm/NewsReleases.asp?Repo rtID=336841&_Type=News-Releases&_Title=Northern-Dynasty-Anglo-American-Establish-5050-Partnership-To-Advance-Pebbl (Anglo American PLC entered into a staged-investment agreement with Northern Dynasty Minerals, Ltd. that gives Anglo American rights to up to fifty percent of the Pebble Mine project).

6. See *Frequently Asked Questions*, PEBBLE LTD. P'SHIP, <http://www.pebblepartnership.com/project/faqs> (last visited Dec. 30, 2011).

7. 33 U.S.C. § 1344 (2010).

8. See, e.g., NORTHERN DYNASTY MINES, INC., APPLICATION FOR GROUNDWATER RIGHT: UNNAMED TRIBUTARY (NK1.190) NORTH FORK KOKTULI RIVER, COASTAL QUESTIONNAIRE AND CERTIFICATION STATEMENT (Sept. 21, 2006), available at <http://dnr.alaska.gov/mlw/mining/largemine/pebble/water-right-apps/2006/gwnfkfinal.pdf> (PDF pages 88–97); see also *Federal, State and Local Permits*, PEBBLE LTD. P'SHIP, <http://www.pebblepartnership.com/content/federal-state-and-local-permits> (last visited Jan. 11, 2012).

9. See *Prospecting the Future*, PEBBLE LTD. P'SHIP, <http://www.pebblepartnership.com/project> (last visited Dec. 30, 2011); *Frequently Asked Questions*, PEBBLE LTD. P'SHIP, <http://www.pebblepartnership.com/project/faqs> (last visited Dec. 30, 2011).

10. See *Pebble Exploration Lands*, NORTHERN DYNASTY MINERALS, http://www.northerndynastyminerals.com/ndm/PD_MM.asp (last visited Mar. 23, 2012).

11. See Press Release, U.S. Env'tl. Prot. Agency, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011) available at <http://yosemite.epa.gov/opa/admpress.nsf/0/8C1E5DD5D170AD99852578300067D3B3>.

EPA is doing so in response to requests from nine federally recognized tribes, numerous commercial and sport fishing organizations, and others, that it commence a public process under Section 404(c) of the Clean Water Act to address potential mining of metallic sulfide deposits in these watersheds—before applications for permits are filed with the Corps. Section 404(c) allows EPA to restrict or prohibit the discharge of dredged or fill material, including mine wastes, into waters of the United States, including tributaries and wetlands, whenever EPA determines, after notice and opportunity for hearing, that such discharges would have an “unacceptable adverse effect”¹² on fisheries, wildlife, municipal water supplies or recreational areas. EPA may do so before a permit application is submitted to the Corps.¹³

12. “Unacceptable adverse effect” is defined as:

impact on an aquatic or wetland ecosystem which is *likely* to result in significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shell fishing, or wildlife habitat or recreation areas. In evaluating the unacceptability of such impacts, consideration should be given to the relevant portions of the section 404(b)(1) guidelines.

40 C.F.R. § 231.2(e) (2011) (emphasis added). The purposes of the 404(b)(1) Guidelines are “to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material,” and to implement congressional policies expressed in the Clean Water Act. The Guidelines establish a rebuttable presumption against allowing any discharge unless it can be demonstrated that the discharge will not have an unacceptable adverse impact “either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.” The Guidelines declare:

From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. The guiding principle should be that degradation or destruction of special sites [such as wetlands] may represent an irreversible loss of valuable aquatic resources.

Id. § 230.1. The Guidelines address direct, cumulative, and secondary effects. *Id.* § 230.11. Secondary effects are those associated with a discharge, but do not result from actual placement of the material, and must be considered prior to agency action under Section 404. *Id.* § 230.11(h)(1).

13. *Id.* § 231.1(a). In the preamble to the regulations, EPA explained:

[1] Such an approach will facilitate planning by developers and industry. It will eliminate frustrating situations in which someone spends time and money developing a project for an inappropriate site and learns at an advanced stage that he must start over. [2] In addition, *advance prohibition will facilitate comprehensive rather than piecemeal protection of wetlands.*

... One commenter said that pre-permit actions were inappropriate because it would be impractical to identify unacceptable adverse effects before a specific discharge is proposed. At least in theory, there are instances where a site may be so sensitive and valuable that it is possible to say that *any* filling of more than X acres will have unacceptable adverse effects.

...

... EPA recognizes that *where possible it is much more preferable to exercise this [Section 404(c)] authority before the Corps or state has issued a permit* ...

Denial or Restriction of Disposal Sites; Section 404(c) Procedures, 44 Fed. Reg. 58,076, 58,077 (Oct. 9, 1979) (first and third emphases added, second emphasis in original). Thus, EPA expressed its *preference* for using Section 404(c) *prior* to permit applications and in a *comprehensive* manner,

This article is in two parts, followed by a conclusion. Part I is factual. It puts EPA's watershed assessment and potential use of Section 404(c) in the historical context of forty -five years of federal and state efforts regarding land use planning, conservation, and development in the Kvichak and Nushagak drainages from 1967 to the present. During most of this period, both levels of government sought to protect uplands necessary for salmon, resident fish, fisheries, and game, as the land ownership pattern in these drainages evolved from nearly total federal ownership in the 1960s to a fragmented pattern by the 1980s, an evolution brought by land selections and conveyances made under the Alaska Statehood Act of 1958,¹⁴ the Alaska Native Claims Settlement Act (ANSCA) of 1971,¹⁵ and the designation of federal conservation units by the Alaska National Interest Lands Conservation Act (ANILCA) of 1980.¹⁶ Historical context demonstrates that EPA's watershed assessment and potential use of Section 404(c) are consistent with a long history of state and federal efforts to conserve uplands necessary to conserve fish. Moreover, in the event that EPA makes a Section 404(c) determination that restricts or prohibits activities necessary to develop such mines, then this historical context may help to make such a determination more stable under future federal administrations which may urge to modify or reverse the Section 404(c) determination.

Part II is interpretive. It offers a perspective on the history. Briefly, as the pattern of land ownership evolved and fragmented, both the state and federal governments eventually sought cooperative land use planning across property boundaries, and ANILCA established a cooperative planning process. But it failed in the 1980s. At that time, both governments put their different interests in controlling decision-making on their lands ahead of the fish and wildlife. The state and federal governments did so despite the fact that their differences were divorced from any necessary decision related to a major project that could have significant effects on fish, wildlife, or the public uses of them. And so, the habitat has remained productive simply because it has been undeveloped, and its natural processes have flourished without hindrance. Now, the prospect of Pebble and similar mines has brought the state government, in the case of its current 2005 Bristol Bay Area Plan for state lands, and the federal government, in the case of EPA's

whenever appropriate to protect fisheries, wildlife, recreation or municipal water supplies. Implicitly at least, EPA recognized its responsibility to do so whenever appropriate.

14. Alaska Statehood Act of 1958, Pub. L. No. 85-508, 72 Stat. 339.

15. Alaska Native Claims Settlement Act of 1971, Pub. L. No. 92-203, 85 Stat. 688 (codified at 43 U.S.C. §§ 1601-1629h (2010)).

16. Alaska National Interest Lands Conservation Act of 1980, Pub. L. 96-487, 94 Stat. 2371.

ongoing watershed assessment and potential use of Section 404(c), closer to making practical decisions.

Because Section 404(c) applies to all navigable waters, including tributaries and wetlands, regardless of land ownership, Section 404(c) is well-tailored to address fragmented property ownership and fish and wildlife, which do not recognize property boundaries. Moreover, the public process of Section 404(c), and EPA's potential use of it, afford all interested parties the same opportunity to re-examine differences arising from ownership, to commit to what is necessary to balance conservation and development in the Kvichak and Nushagak drainages in the context of fragmented ownership, and to be decisive about practical questions such as whether to permit, prohibit, or restrict mining of metallic sulfide deposits in these drainages, regardless of land ownership. However, Section 404(c) is far short of comprehensive, cooperative land use planning. Therefore, this article also identifies the reasons why cooperative land use planning may be more likely to succeed now than in the past.

I. HISTORY OF FEDERAL AND STATE CONSERVATION EFFORTS INVOLVING THE KVICHAK AND NUSHAGAK DRAINAGES

Alaska is comprised of about 375 million acres. If it could be placed atop the contiguous forty-eight states, Alaska could be positioned to touch simultaneously the states of Minnesota, Texas, Florida, and California. The city of Anchorage would be roughly where St. Louis was in the early 1800s, each with no connected roads to the West.

The history of federal and state efforts to address land use in the Kvichak and Nushagak drainages, which contain several million acres, is inseparable from the history of Alaska as a state, including its people, its natural resources, and laws that affect all of them. The Alaska Statehood Act entitles the State to select 103,350,000 acres of federal land in Alaska; that is, (a) for purposes of community development and expansion, Section 6(a) of the Act entitles the State to select 400,000 acres of vacant, unappropriated land from national forests, and 400,000 acres of vacant, unappropriated and unreserved land from other federal lands; and (b) as a general land grant, Section 6(b) entitles the State to select 102,550,000 acres of vacant, unappropriated and unreserved federal land.¹⁷ However, throughout the 1960s, aboriginal land claims of Alaska Natives remained unresolved. As a result, in 1966, the Secretary of the Interior directed the Bureau of Land Management (BLM) to "freeze" processing state selections until Native land claims were

17. Alaska Statehood Act of 1958, Pub. L. No. 85-508, 72 Stat. 339.

resolved.¹⁸ In 1968, the discovery of oil on the North Slope of Alaska, and the need for a Trans-Alaska Pipeline to move that oil to market, added pressure to resolve these claims.¹⁹ To do so, Congress enacted the Alaska Native Claims Settlement Act of 1971 (ANCSA).²⁰ It entitled Native village and regional corporations to select about 44 million acres of federal land,²¹ exempted the federal lands in the Trans-Alaska Pipeline corridor from state selection under the Statehood Act and from Native selection under ANCSA,²² and required the Secretary to withdraw 80 million acres of federal lands in Alaska from all forms of appropriation under the public land laws to recommend to Congress that it establish federal conservation system units in Alaska.²³ Congress did so in the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).²⁴

These statutes have shaped the forty-five-year history of efforts to balance conservation and development in the Kvichak and Nushagak drainages, and deal with land ownership patterns there, as the State eventually acquired title to most of these drainages, and Native corporations acquired much of the riparian and littoral lands. This history unfolds in three periods: (1) 1967 to 1971, (2) 1971 to 2005, and (3) 2005 to the present. Most important, fish shaped the history and land ownership in these drainages.

A. From 1967 to 1971, when the Land in the Bristol Bay Drainages Was Federally Owned, the Alaska State Government Supported Federal Efforts to Manage Uplands to Protect Fish

In the early years after statehood in 1959, nearly all land in Alaska was federal, and BLM managed the vast majority, including the Kvichak and Nushagak drainages. On March 7, 1967, BLM proposed to classify approximately 6.5 million acres of federal land in the Iliamna Lake area for retention in federal ownership and multiple use management under the Classification and Multiple Use Act of 1964.²⁵ BLM held numerous

18. See H.R. REP. NO. 96-97, pt. II, at 164 (1979).

19. See ROBERT D. ARNOLD, ALASKA NATIVE LAND CLAIMS 139-40 (1978).

20. ANCSA, Pub. L. No. 92-203, 85 Stat. 688 (codified at 43 U.S.C. §§ 1601-1629h (2010)).

21. H.R. REP. NO. 96-97, pt. II, at 164 (1979).

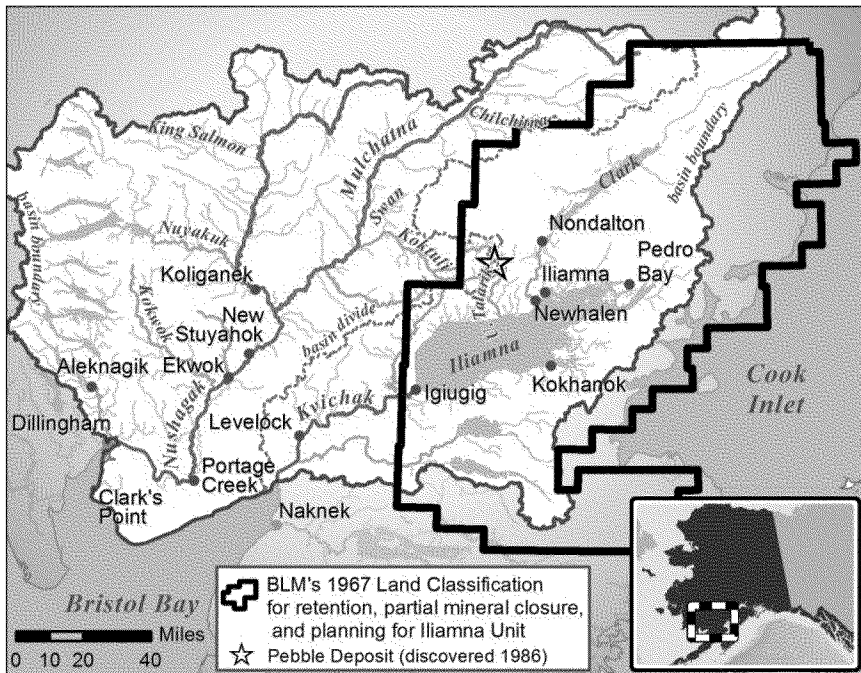
22. ANCSA §17(c) (codified at 43 U.S.C. §1616(c) (2010)).

23. ANCSA §17(d)(2) (codified at 43 U.S.C. §1616(d)(2) (2010)).

24. ANILCA, Pub. L. 96-487, 94 Stat. 2371.

25. Notice, Proposed Classification of Pub. Lands in Iliamna-Cook Inlet Area for Multiple Use Mgmt., 32 Fed. Reg. 3838 (Mar. 8, 1967). Prior to the Federal Land Policy and Management Act of 1976, BLM managed land under the Classification and Multiple Use Act, Pub. L. 88-607, 78 Stat. 986 (1964) (codified at 43 U.S.C. § 1411-18 (repealed)). Section 5 defined "multiple use" as: the management of the various surface and subsurface resources so that they are utilized in the combination that will best meet the present and future needs of the American peo-

public meetings, culminating in a public hearing in King Salmon, Alaska. According to BLM, the bulk of the comments were favorable, or offered constructive criticisms incorporated into the final Notice of Classification of Public Lands, Serial No. AA-818, issued on October 27, 1967.²⁶



Map 1. BLM's 1967 Land Classification.

The final "Iliamna Unit" classification encompassed most of the Iliamna Lake/Kvichak River watershed, nearby areas in the Nushagak-Mulchatna drainage and on the western shore of Cook Inlet, and included the three

ple; the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

26. Notice, Classification of Pub. Lands for Multiple Use Mgmt., 32 Fed. Reg. 14,971-14,972 (Oct. 28, 1967); see also Correction, 32 Fed. Reg. 16,057 (Nov. 22, 1967) (correcting minor errors in land descriptions); Notice, Partial Termination of Segregative Effect, 33 Fed. Reg. 4997 (Mar. 26, 1968) (amending notice to allow state to select community grant and administrative sites).

townships where the Pebble claims presently lie and where tailings facilities for a potential Pebble mine could be located.²⁷

Except as provided in paragraphs 2, 3, and 4 of the final Notice, this classification segregated these 6.5 million acres of federal land from all forms of appropriation under the federal public land laws, including selection by the State under Section 6(b) of the Statehood Act. Paragraph 2 provided that the mining laws for locatable minerals (i.e., those that are subject mining claims) would continue to operate only on land beyond one-half mile from lakes over forty acres,²⁸ one-half mile from Cook Inlet, and one-quarter mile from the Pile Bay-Iliamna Bay portage road between Cook Inlet and Iliamna Lake. Paragraph 3 provided that the land remained subject to the mineral leasing laws for leasable minerals such as oil and gas. Paragraph 4 identified approximately 89,200 acres (of the 6.5 million acres) that remained subject to settlement by Alaska Natives under the Native Allotment Act of May 17, 1906²⁹ and subject to disposal under certain other public land laws, including state selection under community expansion provisions of Section 6(a) of the Statehood Act. Thus, the Iliamna Unit land classification (1) foreclosed state selections under Section 6(b) of the Statehood Act and thereby retained virtually all the land in federal ownership, and (2) closed all land to new mining claims within a half mile of lakes over forty acres, which applied to most lakes where sockeye salmon rear or spawn, such as Iliamna Lake and others over forty acres.

Generally, the State of Alaska supported these actions even though they closed most of the land to state selections, and much of it to mining

27. Paragraph 5 of the Notice describes these 6.5 million acres, in terms of township and range, as including "Tps. 1 to 17 S., Rs. 33 to 36 W.," Seward Meridian (S.M.). Notice of Classification of Pub. Lands for Multiple Use Mgmt., 32 Fed. Reg. 14,971-14,972 (Oct. 28, 1967). This description includes lands where the Pebble claims presently lie in T.3 S., R. 35 W., SM., and where its potential sites for tailings facilities in T. 4 S., R 35 W., SM. and T. 3 S., R. 36 W., SM, would subsequently be located. In 2006, NDM submitted applications to the Alaska Department of Natural Resources for water rights and permits to construct dams. For the township and range locations of the Pebble deposit and potential tailings facilities, see NORTHERN DYNASTY MINES, INC., REF. NO. VA101-176/16-13, PEBBLE PROJECT, TAILINGS IMPOUNDMENT A, INITIAL APPLICATION REPORT, fig.3.1 (2006), available at <http://www.dnr.state.ak.us/mlw/mining/largemine/pebble/water-right-apps/2006/damafig.pdf>. See also *Pebble Project—Water Right Applications*, ALASKA DEP'T OF NATURAL RES., MINING, LAND & WATER, <http://www.dnr.state.ak.us/mlw/mining/largemine/pebble/water-right-apps/index.cfm> (providing hyperlinks to all available NDM permit applications including the preceding Tailings Impoundment A, Initial Application Report) (last visited Apr. 1, 2012).

28. Closing the land within a half mile of lakes over forty acres to the operation of the mining laws protected sockeye salmon, which rear in lakes and are the most important commercial stock. Forty acres is a quarter-mile square. Some lakes in the vicinity of the Pebble deposit, such as Frying Pan Lake, appear to be over forty acres. It is beyond the scope of this article to map the portion of the classification area that was closed to new mining claims.

29. Native Allotment Act of May 17, 1906, 34 Stat. 197 (codified as amended at 43 U.S.C. § 270-1 to 270-3 (repealed 1971)).

claims. The Governor, Walter J. Hickel, focused on the recreational and commercial fisheries. He wrote to the Secretary of the Interior that the classification

has received *enthusiastic support* by the State of Alaska, which recognizes that in certain circumstances, such as the Iliamna classification, immediate recreational development might be difficult to accomplish without the Federal Government's assistance. However, as pointed out by BLM officials, a substantial portion of the nursery area for the Bristol Bay salmon run is included in the Iliamna classification. Obviously, administrative sites to aid in effective fish and game management will be needed in the classified area.³⁰

Governor Hickel requested that the classification order be modified to allow community expansion selections (under Section 6(a) of the Statehood Act) from the entire area, instead of just the 89,200 acres in Paragraph 4. He also suggested that the State's general land grant selections (under Section 6(b) of the Act) be permitted "if it be determined by State agencies to be in the best interests of sound fish and game and other resource management." Subject to these suggestions, he wrote that the State was "basically in accord with the classification order as devised."³¹

From 1968 to April 1971, BLM prepared an "Iliamna Unit Resource Analysis" in order to make recommendations for future BLM management of the Iliamna Unit and address issues that are still current today. These issues included potential mining and roads, and protection of fish and wildlife habitat and commercial, subsistence, and sport fishing, and will be discussed further below.³²

As BLM was preparing its Analysis, the Alaska Legislature also took the first of many steps by the State to conserve fish and wildlife habitat in the Bristol Bay drainages. In 1970, the Alaska Senate passed

30. Letter from Governor Walter J. Hickel to Stewart Udall, U.S. Sec'y of the Interior (Nov. 30, 1967) (on file with BLM in Anchorage, Alaska, case file No. AA-818).

31. *Id.* In response to Governor Hickel's request, BLM modified the classification to allow the State to select community grant lands and administrative sites under any provisions of the Statehood Act, but the area still remained segregated from selection under the general land grant provisions of the Act. *See* Notice of Partial Termination of Segregative Effect, 33 Fed. Reg. 4997 (Mar. 26, 1968).

32. *See* BLM, ILIAMNA UNIT RESOURCE ANALYSIS, pt. 4, LANDS, at 11 (1971) [hereinafter BLM ANALYSIS] (on file with Alaska Resources Library & Information Services, University of Alaska Anchorage). This is probably the first such land use planning document produced in Alaska for multiple use lands. It was prepared prior to the Federal Land Policy and Management Act of 1976 and the National Forest Management Act, which respectively require BLM and the U.S. Forest Service to adopt land use plans. *See also* Memorandum from BLM, Request for Status Plats of Iliamna Unit (Sept. 24, 1968) (on file with BLM in Anchorage, Alaska, case file No. AA-818) (indicating that BLM's planning process had commenced in 1968).

Senate Resolution No. 14. It expressed the Senate's opposition to a proposed Iniskin Bay-Iliamna Lake road route to the Village of Iliamna and Bristol Bay, which is now the same route proposed for developing potential metallic sulfide mines in the area of the Pebble mining claims. Senate Resolution No. 14 found (1) that the route would "traverse much prime big game habitat as well as most of the principal spawning streams comprising the most important red salmon spawning area in the world," and (2) that "historically, big game habitat and spawning streams readily accessible to highways have been seriously harmed by such proximity." The resolution requested the governor to direct the Department of Highways to study an alternative route.³³

Also in 1970, the Alaska Legislature passed legislation, H.C.S. S.B. 384, 6th Leg., 2d Sess., to establish a "Bristol Bay Fisheries Reserve," constituting state-owned "submerged and shoreland"³⁴ lying north of 56 degrees, 23 minutes north latitude, and east of 159 degrees, 49 minutes west longitude within the Bristol Bay drainages,³⁵ which included the shorelands of the Kvichak and Nushagak drainages. This legislation would have barred oil, gas, and mineral leasing or permits within the reserve, but Governor Miller vetoed it in part because "more than 95 percent of the area" was federally owned or beyond the State's jurisdiction.³⁶ (This legislation led to subsequent state legislation, enacted in 1972, which, as discussed below, established a slightly smaller Bristol Bay Fisheries Reserve.)

33. S. Res. 14, 6th Leg. (Alaska 1970) (The alternative route was through what was then the Katmai National Monument and is now Katmai National Park and Preserve).

34. ALASKA STAT. § 38.05.965 (2011) defines "submerged land" and "shoreland" as follows:

(20) "shoreland" means land belonging to the state which is covered by nontidal water that is navigable under the laws of the United States up to ordinary high water mark as modified by accretion, erosion, or reliction; . . .

(22) "submerged land" means land covered by tidal water between the line of mean low water and seaward to a distance of three geographical miles or further as may hereafter be properly claimed by the state.

The State acquired title to navigable water bottoms at statehood, under the Equal Footing Doctrine of the U.S. Constitution, and under the Submerged Lands Act of 1953, at 43 U.S.C. §1311(a). See *State of Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1403-04 (9th Cir. 1989).

35. This latitude intersects the Alaska Peninsula approximately midway between Port Heiden and Port Moller, Alaska, and this longitude intersects Kulukak Bay, between Togiak and Dillingham, Alaska. These points of reference, i.e., Kulukak Bay and Port Moller, would be used in subsequent federal legislation, H.R. 13,416, 92d Cong., 2d Sess. (1972), which proposed a "Bristol Bay National Wildlife Refuge," discussed below.

36. See H.C.S. S.B. 384, 6th Leg., 2d Sess. (Alaska 1970) (as amended by the House); Veto Letter, Gov. Miller to Hon. Brad Phillips, Pres. of S., Alaska Leg. (June 23, 1970), in ALASKA S. JOURNAL, 6th Leg. 1342-44 (July 7, 1970). The legislation was sponsored by Senator Jay Hammond. He would play a significant role, as a state legislator and governor, throughout many efforts to balance conservation and development in the Bristol Bay drainages, including the Kvichak and Nushagak drainages.

In 1971, the Alaska Legislature took up the broader issue of how it might act to conserve Bristol Bay drainages in the context of what was then nearly total federal land ownership. On January 26, 1971, State Senator Jay Hammond introduced Senate Joint Resolution No. 4 (S.J.R. No. 4), which the Senate, after grammatical amendment, passed unanimously on February 4, 1971, by a vote of twenty to zero.³⁷ On February 5, 1971, twenty state representatives (i.e., half of the Alaska House of Representatives) introduced House Joint Resolution No. 16 (H.J.R. No. 16), which was identical to S.J.R. No. 4, as amended. Both resolutions now stated:

WHEREAS the watersheds of the Kvichak, Naknek, Egegik, and Alagnak Rivers are the world's greatest salmon spawning grounds; and

WHEREAS these watersheds are among the world's last significant naturally maintained rainbow trout fisheries; and

WHEREAS these factors coincide to make this area unique as a fishery, both from a commercial and from a recreational standpoint; and

WHEREAS the commercial and sport fisheries in this area are vital to the economic well-being of Alaska; and

WHEREAS the Legislature considers the maintenance and improvement of the commercial and sport fish populations to be the *controlling factor* in management of these watersheds; and

WHEREAS the spawning and rearing grounds of the commercial and sport species within these watersheds are *especially susceptible to damage*;

BE IT RESOLVED that the federal government which now owns and controls these lands is urgently requested to manage the Kvichak, Naknek, Egegik, and Alagnak watersheds in a manner designed to give *primary recognition* to the extremely valuable commercial and sport fishing resources existing there.³⁸

On February 18, 1971, the Alaska House passed H.J.R. No. 16, by a unanimous vote of thirty-one to zero (and nine excused).³⁹

37. S.J.R. 4, 7th Leg. (Alaska 1971); ALASKA S. JOURNAL, 7th Leg. 102–03, 119–20 (1971).

38. H.J.R. 16, 7th Leg. (Alaska 1971) (emphasis added); ALASKA H. JOURNAL, 7th Leg. 264–65 (1971).

39. Although the resolutions were identical, they had separate numbers, and thereafter neither house acted to pass the resolution of the other. Congressional enactment of ANSCA intervened, changing the future of land ownership and management in Alaska. But the sense of the Alaska Legislature is clear from the unanimous votes on these resolutions.

Meanwhile, on February 2, 1971, Senator Hammond re-introduced legislation to establish a Bristol Bay Fisheries Reserve, with the same boundaries (north of 56 degrees, 23 minutes north latitude and east of 159 degrees, 49 minutes west longitude) as the legislation which had been passed and vetoed in 1970.⁴⁰

On April 6, 1971, BLM published its "Iliamna Unit Resource Analysis" (BLM Analysis)⁴¹ for its "Iliamna Planning Unit and Classification Area."⁴² BLM's Analysis inventoried what was known about land use in the area, the people, economy, climate, topography, hydrology, vegetation, soils, geology, minerals, timber, livestock forage, watershed, fish and wildlife habitat, and recreation.⁴³ At that time, this land was still 99.8% in federal ownership,⁴⁴ the population was 85% Native,⁴⁵ and BLM described the Iliamna Unit as "a 'frontier' area where only in relatively recent years has the majority of persons, especially the native population, been very interested in land ownership and title."⁴⁶ BLM's Analysis recognized that (1) the Kvichak system is historically "the largest producer of red salmon in the world," and that "Iliamna Lake and Lake Clark are the principle nursery areas" of the watershed;⁴⁷ (2) subsistence uses occurred on virtually any lands that were readily accessible;⁴⁸ (3) the cash economy of villages in the watershed depended primarily on commercial fishing in Bristol Bay;⁴⁹ (4) mineral exploration was occurring, particularly in mineralized areas of the eastern portion of the Iliamna Unit;⁵⁰ and intensive development outside existing communities could occur only with road development;⁵¹ (5) recreation focused on fish, wildlife, and "open-space wilderness;"⁵² and (6) the area needed a "well balanced land use plan at the earliest possible time that will not appreciably detract from these all-important major recreation-oriented assets, or impair the waters that provide the major spawning grounds for the Bristol Bay commercial fishery."⁵³

40. S.B. 2, 7th Leg., 1st Sess. (Alaska 1971).

41. BLM ANALYSIS, *supra* note 32.

42. *Id.* at LANDS 11.

43. *Id.* at tbl. of contents.

44. *Id.* at LANDS 9.

45. *Id.* at LANDS 1.

46. *Id.*

47. *Id.* at LANDS 1-2.

48. *Id.* at LANDS 6.

49. *Id.* at LANDS 3.

50. *Id.* at MINERALS 1-16.

51. *Id.* at LANDS 22.

52. *Id.* at LANDS 7.

53. *Id.*

With respect to salmon habitat and based on knowledge at the time, BLM's Analysis identified sixty-three salmon spawning streams and twenty-seven salmon spawning beaches in the Kvichak drainage. BLM observed that only six streams and two beaches appeared to account for more than five percent of the total sockeye salmon run in the Kvichak watershed, that seemingly "minor" spawning areas may produce up to sixty percent or more of the total Kvichak run, and that these "minor" spawning areas are the most difficult to protect and manage.⁵⁴ With respect to salmon habitat, BLM concluded:

A seemingly minor but potentially major problem should be mentioned. The Kvichak salmon run is the product of thousands of small spawning areas. Loss of any one of these small areas will not seriously affect the total run, so the separate areas are not looked upon as being individually important. The loss of many of these areas all at once could have a noticeable effect and would probably be strongly opposed by the fishing industry. But loss of a few areas at a time extended over many years would have the same effect. Yet because the resultant decline in productivity would be prolonged there would be no great public outcry over the loss in spawning area. The fishing industry would more probably blame the lowered productivity on Fish and Game Department management policies.

The solution to this situation is to maintain the commercial fishery spawning⁵⁵ grounds and their watersheds in a primitive or wilderness status.

With respect to sport fish habitat, BLM concluded:

Most of the fishable waters in the Iliamna Planning Unit are in a relatively pristine state.

Prevention of loss of sport fish habitat would also help in maintaining higher quality fishing. Future developments must be undertaken with maximum protection to watersheds. Roads should be built where erosion and siltation will be minimal. Timber harvesting must be done with buffer strips left along streams and

54. *Id.* These statements by BLM are an early version of what fisheries biologists refer to as the "portfolio effect," i.e., that all large and small stocks are important to overall productivity of a salmon resource, because over time, genes that are less successful at one point in time or set of environmental conditions time become more successful at another point in time or set of environmental conditions, which is to say that genetic diversity operates like a stock portfolio. See Daniel E. Schindler, et al., *Population Diversity and the Portfolio Effect in an Exploited Species*, 465 NATURE 609, 609 (June 3, 2010).

55. BLM ANALYSIS, *supra* note 32, at WILDLIFE 34. BLM's Analysis frequently used the words "primitive" or "wilderness" to encompass various means of preserving such character, and referred to designated "wilderness" when referring to the Wilderness Act of 1964, Pub. L. 88-577. As mentioned below, the State does essentially the same in its land use plans for the area.

rivers. Mineral development must be restricted from degrading productive waters.⁵⁶

With respect to recreation, BLM wrote that rainbow trout are “by far the most sought after species by anglers in the planning unit”; that according to the State, certain waters are of “national if not international value and must be managed as such for future generations”; and that the State had designated nine of the waters as “trophy” trout streams.⁵⁷ BLM concluded that to maintain the trophy attraction, “restrictive recreation use (probably no development of any kind) will have to be recommended,” that improved access “greatly accelerates the rate at which trophy streams can be degraded to common fishing streams,”⁵⁸ that access provided by the Iniskin-Iliamna route to Bristol Bay would “essentially eliminate” four of the trophy trout waters,⁵⁹ and that the State Highway Department (now Alaska Department of Transportation & Public Facilities) had estimated 40 to 50 thousand visitors per year by 1985 if the road were built.⁶⁰ With respect to the trophy trout streams, BLM concluded that “high reliance on the wilderness portion of the planning system is a necessity.”⁶¹

Thus, from 1967 to 1971, when the land was nearly all federally owned, and even after the federal government froze state land selections in 1966 pending settlement of Native land claims, the State encouraged federal land use planning to protect uplands as necessary to protect fish and fisheries. This is most evident in (1) Governor Hickel’s “enthusiastic” support for BLM’s 1967 classification, which closed much of Iliamna Lake/Kvichak River drainage to new mining claims, although mineral exploration was occurring, and closed nearly all of that area to state land selections; and (2) the Alaska Legislature’s joint resolutions in 1971 (i.e., S.J.R. No. 4 and H.J.R. No. 16), which “urgently requested” the federal government “to manage the Kvichak, Naknek, Egegik, and Alagnak watersheds in a manner designed to give primary recognition to the extremely valuable commercial and sport fishing resources existing there.”

56. BLM ANALYSIS, *supra* note 32, at WILDLIFE 35.

57. *Id.* at WILDLIFE 11. The “trophy” streams were Alagnak (Branch) River, Battle River, Copper River up to its falls, Gibraltar Lake and River, Iliamna River, Kulik River, Kvichak River from outlet to Otter Island, Lower Talarik Creek, Newhalen River. *See id.* at RECREATION 1. At the time, “trophy” meant that rivers were protected by restrictive regulations to maintain trophy size trout. *Id.* at RECREATION 2. Most of these sport fisheries for trout are presently managed by the State for catch-and-release during the summer season. *See* ALASKA ADMIN. CODE tit. 5 § 67.022 (2011).

58. BLM ANALYSIS, *supra* note 32, at RECREATION 2.

59. *Id.* at RECREATION 3–4.

60. *Id.* at RECREATION 32.

61. *Id.* at RECREATION 33.

B. From 1971 to 2005, as Land Ownership Fragmented Due to the Statehood Act, ANCSA, and ANILCA, the State and Federal Governments Adopted Measures to Manage Uplands in the Bristol Bay Drainages to Protect Fisheries, but Cooperative Efforts Across Property Boundaries Failed

Although the Statehood Act reshaped land ownership in Alaska more than any other statute, land conveyed to the State remained public land owned by the State. This is not the case with the Alaska Native Claims Settlement, which conveyed federal land to private corporations. This affected future state and federal efforts to conserve the Kvichak and Nushagak drainages.

1. In 1971, ANCSA Resolved Native Land Claims, Complicates Land Management for Fish and Wildlife that Traverse Property Boundaries, and Prompted Further State and Federal Efforts to Conserve the Kvichak and Nushagak Drainages.

On December 18, 1971, Congress enacted the Alaska Native Claims Settlement Act.⁶² It required that the Secretary of the Interior enroll Alaska Natives according to their village and region, that they establish village and regional Native corporations to select lands, and that the Secretary convey about 44 million acres of federal land to these corporations.⁶³ ANCSA, in addition to the Statehood Act, further reshaped land ownership patterns and the management of land in Alaska, including in the Kvichak and Nushagak drainages.

Section 11 of the Act withdrew from all forms of appropriation under the public land laws, including the Statehood Act, the “core” township(s) of each Native village, plus two concentric rings of townships surrounding the core township(s).⁶⁴ Section 12 required each village corporation to select, from the lands withdrawn for each village, its “core” township(s) plus an area to make each village corporation’s total selection equal to the acreage entitlement established by Section 14.⁶⁵ A village corporation received the surface estate, and the corresponding regional corporation received the subsurface estate.⁶⁶ Section 14 also allowed regional corporations to select additional surface and subsurface acreage.

62. ANCSA, Pub. L. No. 92-203, 85 Stat. 688 (codified at 43 U.S.C. §§ 1601–1629h (2010)).

63. See 43 U.S.C. §§ 1604, 1606, 1607, 1610–13, 1615 (2010).

64. A township, “six miles square” (or thirty-six square miles), divides land in squares and is the basis of the U.S. Survey method. See 43 U.S.C. § 751 (2010).

65. 43 U.S.C. § 1611 (2010). Under Section 14, the size of the acreage entitlement of a village is proportional to the Native population in the village in the 1970 Census. See *id.* § 1613(a).

66. *Id.* § 1613 (2010).

Section 17 of ANCSA also had substantial effect on the subsequent history of lands in the Kvichak and Nushagak watersheds.⁶⁷ Subsection 17(d)(1) allowed the Secretary of the Interior to withdraw federal lands in Alaska for study and classification in the public interest. Subsection 17(d)(2) required the Secretary to withdraw 80 million acres from appropriation under federal public land laws, including the Statehood Act and the mining laws, in order to submit to Congress within two years his recommendations of lands suitable for addition to or creation of federal conservation system units (e.g., national parks, wildlife refuges, etc.). These land withdrawals protected the land recommended by the Secretary for five years, which would allow time for Congress to act upon the Secretary's recommendations.⁶⁸ Subsection 17(d)(2)(B) reopened all unreserved federal public lands in Alaska *not withdrawn* under Subsections 17(d)(1) or (d)(2) to state selection and appropriation under the public land laws. Subsection 17(d)(2)(C) provided that any lands withdrawn under Section 17(d)(2), but not recommended by the Secretary after two years from enactment of ANCSA, would be reopened to selection by the State or by regional corporations and to appropriation under the public land laws. Section 17(a) established the Federal-State Land Use Planning Commission to assist land use planning in general, including proposed federal conservation system units and state and Native land selections. All these Congressional actions ended the more general 1966 "land freeze."

However, it was clear that Alaska would be permanently divided up among federal, state, Native corporate and other private land ownerships. This would precipitate many efforts to conserve fish and wildlife habitat in the Kvichak and Nushagak drainages in the context of an evolving pattern of state and Native land selections and future state, federal, and Native ownership.

2. In 1972, While Federal Legislation Proposed a Bristol Bay National Wildlife Refuge, the Alaska Legislature Designates State-Owned Beds of Navigable Waters as the Bristol Bay Fisheries Reserve.

On February 28, 1972, Representative John Dingell of Michigan, and other Members of Congress, introduced H.R. 13,416, "The Alaska Refuges Act," without waiting for the Secretary of the Interior to submit proposals as required by Section 17(d)(2) of ANCSA. H.R. 13,416 included a proposed "Bristol Bay National Wildlife Refuge," which

67. *Id.* §1616.

68. *See id.* §1616(d)(2)(D).

included most of the Bristol Bay drainages east of Kulukak Bay and north of Port Moller on the Alaska Peninsula.⁶⁹ Kulukak Bay and Port Moller are approximately the same points of reference that the Alaska Legislature had used as lines of latitude and longitude when it had passed S.B. 384, 6th Leg., 2d Sess., in 1970 and when State Senator Hammond introduced S.B. 2, 7th Leg., 1st Sess., in the Alaska Legislature in 1971.⁷⁰ Section 5 of H.R. 13,415 would have made the federal land in the proposed refuges exempt from selection under the Statehood Act, and exempt from selection under ANCSA (which Congress had just enacted), except for the “core” townships described in ANCSA.⁷¹ Thus arose the issue of fragmented future ownership of land where fish and wildlife do not recognize property boundaries.

In 1972, the Alaska Legislature established a slightly smaller “Bristol Bay Fisheries Reserve” than had been passed and vetoed in 1970. The enacted reserve constitutes the state-owned submerged lands and shorelands “lying north of 57 degrees, 30 minutes, North latitude and east of 159 degrees, 49 minutes, West longitude within the Bristol Bay drainage,”⁷² which includes shorelands of the Kvichak and Nushagak drainages. The statute bars surface entry permits to develop an oil and gas lease or oil and gas exploration license in the reserve, until the Legislature, by appropriate resolution, finds that such activities “will not constitute a danger to the fishery.”⁷³

3. In 1973, the Department of the Interior Proposed an Iliamna National Resource Range.

In December 1973, the Secretary of the Interior submitted recommendations to Congress for conservation system units in Alaska, as required by Section 17(d)(2) of ANCSA. These recommendations included a proposed “Iliamna National Resource Range” of about 3 million acres.⁷⁴ In 1974, the Department of the Interior (DOI) issued an environmental impact statement (EIS) on each of these recommendations. Each EIS first identified an “area of ecological concern,” and within it, DOI developed a proposed conservation system unit based on natural resource values and land status, taking into account

69. See H.R. 13,416, 92d Cong., 2d Sess. (1972).

70. See *supra* text accompanying notes 36–40.

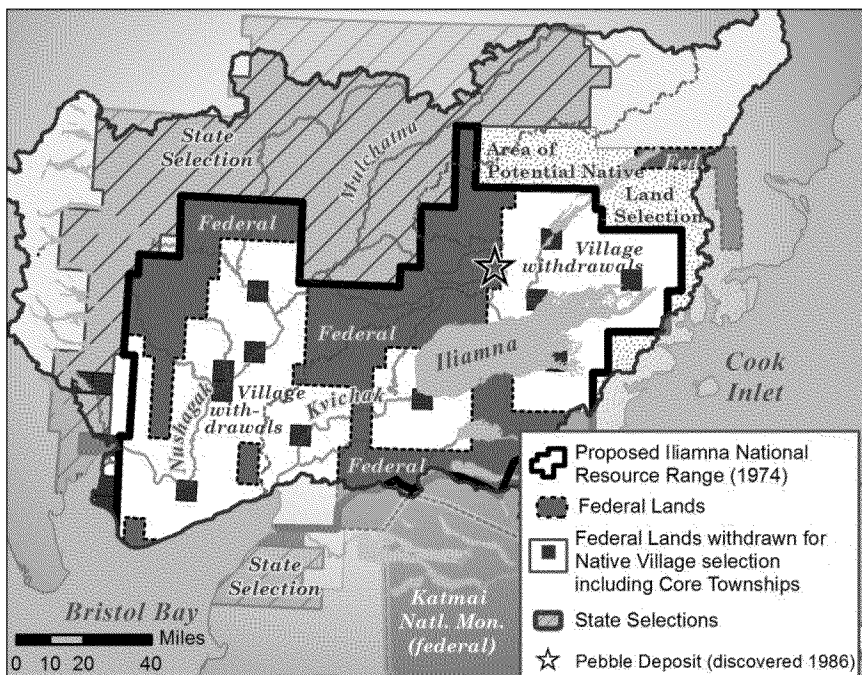
71. See H.R. 13,416, §5, 92d Cong. 2d Sess. (1972).

72. ALASKA STAT. § 38.05.140(f) (2011). This latitude intersects the Alaska Peninsula at a point approximately Ugashik, and this longitude intersects Kulukak Bay, between Togiak and Dillingham.

73. ALASKA STAT. § 38.05.140(f) (2011).

74. Letter from Rogers Morton, Sec’y of the Interior, to Speaker, H.R. (Dec. 17, 1973), *re-printed in* H.R. COMM. ON INTERIOR AND INSULAR AFFAIRS, BACKGROUND INFORMATION FOR ALASKA LANDS DESIGNATIONS 130 (Comm. Print 4, 1977).

potential future land ownership. Land status at the time depended on (1) withdrawals under ANSCA for potential Native selection, (2) the presence of state lands and state selections, and (3) withdrawals under Section 17(d)(1) of ANSCA for public interest classification and under Section 17(d)(2) for potential federal conservation designation.



Map 2. Land Status, 1974 EIS on Proposed Iliamna National Resource Range.

DOI identified the entire Kvichak and Nushagak drainages as an “area of ecological concern.” Within this area, the proposed Iliamna National Resource Range encompassed most of the Kvichak River watershed (including the drainages into Iliamna Lake, the southern part of the Lake Clark watershed, and the Alagnak watershed), and most of the Nushagak drainage south of state land selections in the northern part of that drainage. The proposal included lands at and surrounding what are now the Pebble claims. The Iliamna National Resource Range would have

(1) withdrawn the federal land from appropriation under the public land laws, including the Statehood Act and the mining laws [i.e., mining claims], but not the mineral leasing laws,

(2) been jointly managed, by the Bureau of Land Management and the U.S. Fish and Wildlife Service, as part of the National Wildlife Refuge System, “for multiple use and sustained yield management of the area’s resources, with a primary objective being the protection and preservation of the nationally and internationally significant fish and wildlife populations and their habitats, with special emphasis given to anadromous fishes, Alaskan brown bear, endangered species and migratory birds,” and

(3) allowed the Secretary of the Interior to issue permits for exploration and development of mineral deposits normally subject to location and entry [i.e., mining claims] under the mining laws, pursuant to regulations establishing procedures, and terms and conditions, under which such activities could be conducted.⁷⁵

The 1974 EIS cited the actions in 1971 of the Alaska Legislature in passing S.J.R. No. 4 and H.J.R. No. 16, both of which had “urgently requested” the federal government “to give primary recognition to the extremely valuable commercial and sport fishing resources” in much of the area, as part of the history of the proposed Iliamna National Resource Range.⁷⁶ Similarly, comments by the University of Alaska on the draft EIS also recognized that “[t]his proposal is virtually what the State of Alaska Legislature requested in [S.J.R.] No. 4 and [H.J.R.] No. 16.”⁷⁷

However, the land status map in the 1974 EIS clearly depicted the emerging pattern of fragmented land ownership in the Kvichak and Nushagak drainages.⁷⁸ Within the broader “area of ecological concern,” the state had selected much of the northern Nushagak drainage where fish production occurs in that watershed; within the 3-million-acre proposal itself, the federal government had withdrawn for Native village selection much of the land along salmon spawning streams draining into Iliamna Lake, and along the lower Nushagak River.⁷⁹ Therefore, the EIS proposed regional planning for the Kvichak and Nushagak drainages as follows:

Land ownership and administration in the Iliamna Range will be fragmented into different types; Federal lands, village lands,

75. DEP’T OF THE INTERIOR, FINAL ENVIRONMENTAL IMPACT STATEMENT, PROPOSED ILIAMNA NATIONAL RESOURCE RANGE 1 (1974). Elsewhere, the purposes of the proposal included to “maintain the high quality of the environment of the Lake Iliamna/Nushagak River area in order to protect and perpetuate the total fish and wildlife values with rainbow trout, sockeye salmon and other anadromous fishes, endangered species and migratory birds of particular importance.” *Id.* at 2.

76. *See id.* at 19.

77. *Id.* at 452 (Letter from L. J. Peyton, Coord. for Env’tl. Serv. and Assist. Zoophysiologicalist, U. of Alaska, Inst. of Arctic Biol., to T.R. Swem, Chair, Alaska Planning Grp., DOI (Feb. 21, 1974)).

78. *Id.* at 9.

79. *See id.* at 9 (Map 2, Land Status).

patented Native allotments, and possibly State lands. Borough, State, regional corporation, village and private interests will be present. . . . A regional planning effort will be critical to achievement of the objectives established in this proposal.⁸⁰

However, as shown below, the emerging pattern of fragmented land ownership soon ruptured previous state support for federal efforts to implement protections and was compounded by land issues elsewhere, to the north and east in the Cook Inlet drainages, where one of the largest negotiated land exchanges in American history was in the making.⁸¹

4. In 1976, Congress and the Alaska Legislature Ratify the Cook Inlet Land Exchange by Which the State Acquired Federal Land in the Kvichak and Nushagak Drainages, Including Where the Pebble Claims Are Now Located, to Protect Fish.

Soon after Congress enacted ANCSA, it became apparent that within the Cook Inlet region the State has selected much of the desirable federal land that was vacant, unappropriated, and unreserved, or it was already “reserved” as the Kenai National Moose Range (now the Kenai National Wildlife Refuge).⁸² Thus, only limited developable acreage was available for Native selection in the Cook Inlet area.⁸³ The Native regional corporation, Cook Inlet Region, Inc. (CIRI), sued the United States, alleging that, as a result of this pre-ANCSA land history, its statutory acreage entitlement could only be satisfied by mountain tops and glaciers (the only remaining available land), and that this result would defeat the purpose of ANCSA with respect to CIRI.⁸⁴ Although the suit was unsuccessful in the federal district court, CIRI appealed⁸⁵ and then sought relief from Congress.

80. *Id.* at 13. EPA’s comments on the draft EIS addressed the emerging pattern of mixed federal-state-Native ownership, and recommended “that provisions be provided that will allow implementation of regional planning which would provide for the most effective resource management.” *Id.* at 240. The final EIS includes a proposed memorandum of understanding, between BLM and FWS, which states: “The management of other land ownerships in the Iliamna area being critical to effective management of the range’s fishery resource, an overall regional plan for the Iliamna region will be encouraged in cooperation with all concerned ownerships.” *Id.* at 551.

81. See COOK INLET REGION, INC. (CIRI), COOK INLET LAND EXCHANGE 30-YEAR ANNIVERSARY 1 (2006), available at http://www.ciri.com/media/media/Oct06_LandExchange.pdf.

82. See ANILCA, Pub. L. 96-487, § 303, 94 Stat. 2371 (1980).

83. ANCSA, Pub. L. No. 92-203, § 12(a)(1), 85 Stat. 688 (1971) (codified at 43 U.S.C. § 1611(a)(1) (2010)) (this limits selections by a village corporation to 69,120 acres within any National Wildlife Refuge existing at the time ANCSA was enacted).

84. COOK INLET REGION, INC., *supra* note 81, at 6.

85. See *State v. Lewis*, 559 P.2d 630, 633 (Alaska 1977) (discussing *Cook Inlet Region, Inc. v. Morton*, No. A-40-73 Civ. (D. Alaska, Feb. 20, 1975) (unreported decision), appeal docketed *sub nom.* *Cook Inlet Region, Inc. v. Kleppe*, No. 75-2232 (9th Cir.); see also, Memorandum, M.C.T. Smith, Dir., DNR Div. of Lands, to G. R. Martin, Comm’r, DNR (Dec. 6, 1975) (on file at Anchor-

In 1976, Congress enacted Public Law 94-204.⁸⁶ Section 12 of the Act approved a three-way, 2-million-acre land exchange between the United States, the State, and CIRI, pursuant to an agreement described and approved in Section 12(b) as the “Terms and Conditions for Land Consolidation and Management in the Cook Inlet Area, December 10, 1975.”⁸⁷ It is popularly known as the “Cook Inlet Land Exchange” or the “Cook Inlet Land Trade.” Its purpose was “to facilitate land management and to create land ownership patterns which encourage settlement and development in appropriate areas.”⁸⁸ Under the exchange, the State relinquished 21.5 townships (495,360 acres) of state land selections under the Statehood Act on the Kenai Peninsula, in the Matanuska and Susitna Valleys, and in the Beluga Lake Area so that CIRI could select and obtain title to these lands as part of its ANCSA entitlement.⁸⁹ In exchange, the State received approximately 52 townships (1,198,000 acres) of lands from the federal government.⁹⁰ These federal lands, conveyed to the State, are described by Section 12(d)(1), at 89 Stat. 1153, as follows:

- (i) At least 22.8 townships and no more than 27 townships of land from those presently withdrawn under section 17(d)(2) of the Settlement Act in the Lake Iliamna area, and within the Nushagak River or Koksetna River drainages near lands heretofore selected by the State, the amount and identities of which shall be determined pursuant to the document referred to in subsection (b) [i.e., the “Terms and Conditions for Land Consolidation and Management in the Cook Inlet Area”];
- (ii) 26 townships of lands in the Talkeetna Mountains, Kamishak Bay, and Tutna Lake areas, the identities of which are set forth in the document referred to in subsection (b).⁹¹

Under the land exchange, the State received title to the three townships where the Pebble deposit and potential tailings facilities are presently located,⁹² plus title to other townships in the vicinity.⁹³ After Congress

age Law Library, Alaska Leg. Comm. Files, 1975–1976, fiche nos. 198–99) (discussing CIRI’s lawsuit).

86. Pub. L. No. 94-204, 89 Stat. 1145 (1976).

87. *Id.* § 12, 89 Stat. at 1150–54; H.R. REP. NO. 94-729, at 2402–19 (1975) (setting out the “Terms and Conditions for Land Consolidation and Management in the Cook Inlet Area”).

88. Pub. L. No. 94-204, § 12(a), 89 Stat. at 1151.

89. *Id.* § 12(b), 89 Stat. at 1151.

90. *Id.*

91. *Id.*

92. DNR records show the State obtained title to these three townships under the land exchange authorized by PL 94-204. See *Alaska DNR Land Abstract*, ALASKA DEP’T OF NATURAL RES., http://dnr.alaska.gov/projects/las/Land_Abstract.cfm?Meridian=S&Township=003S&Range=

enacted Public Law 94-204, which approved the exchange for federal purposes, the Alaska Legislature did so for state purposes by enacting Chapter 19 S.L.A. 1976.

The committee files of the Alaska Legislature regarding Chapter 19 S.L.A. 1976 and the Cook Inlet Land Exchange demonstrate that, through the exchange, the State sought and acquired uplands in the Kvichak and Nushagak drainages, including where the Pebble deposit is located, *in order to protect fish*. First, the committee files contain materials submitted by the Alaska Department of Natural Resources (DNR) to document public meetings it held in late 1975 on the proposed exchange, including DNR's press release. It describes the exchange as follows:

In the discussions with Cook Inlet Region, Inc., and the Department of the Interior, the State has attempted to accomplish a number of objectives, including the assurance of a rational land ownership pattern within the Cook Inlet Basin and *the ability of the State to control certain lands which it feels necessary to properly protect its future interests*. This latter point is predicated on the State's firm conviction that it can govern more effectively and be more responsive to its citizens' needs than could the federal government.

As it is the role of the State to provide its citizens with a number of public services (i.e., transportation, communications, education, public safety, etc.) it is in the State's interest, both socially and economically, to insure that future development occurs in those areas best suited for such development, i.e., within areas which contain good land forms, ground water, no flowing [water], etc. and to which governmental services may be brought in an economical manner. This was a prime consideration in determining which lands the State tentatively *offered* to Cook Inlet Region, Inc.

With respect to lands which the State seeks to *gain* through this transaction, *the emphasis was on those lands in the Cook Inlet and nearby Iliamna Lake areas which the State feels should remain in public ownership and which it wishes to own itself to insure that its objectives in those areas are under its control. In particular, two areas are sought*. First, the lands presently in federal ownership in

035W&Section=&CustFlag=y , http://dnr.alaska.gov/projects/las/Land_Abstract.cfm?Meridian=S&Township=003S&Range=036W&Section=&CustFlag=y , http://dnr.alaska.gov/projects/las/Land_Abstract.cfm?Meridian=S&Township=004S&Range=035W&Section=&CustFlag=y (for each web address, note "PL 94 -204, APPX D" under "Title Acquisition").

93. See H.R. REP. NO. 94-729, at 2417-19 (1975) (Appendices D and E of the "The Terms and Conditions for Land Consolidation and Management in the Cook Inlet Area").

the Talkeetna Mountains area, where Cook Inlet Region would select, north and east of the populated Matanuska and Susitna Valleys respectively. In addition to timber, watershed, and high recreational values, these lands will become increasingly more important to the State as future development and settlement intensifies on the periphery in the Matanuska and Susitna Valleys.

*The second area of interest is Iliamna Lake. This watershed produces the world's largest red salmon fishery and it is upon this fishery which the major portion of our citizens in the Bristol Bay area are dependent. The area is also the focus of the finest trophy rainbow trout system in North America. The State has management control of these fisheries and by gaining control of the remaining public lands would be able to more effectively manage these fisheries in the public interest. Also, with approximately 15 percent of the lands in the Bristol Bay area going into native village corporate ownership the State feels that it can be much more responsive to both their private needs and those of the public in this area than could be the geographically removed federal government. In addition to these very high fishery values, this area has high wildlife and recreational values as well as some oil and gas potential.*⁹⁴

Second, the committee files contain a forty-two-page memorandum, from DNR's Director of the Division of Lands, Michael C. T. Smith, to the Commissioner of DNR, Guy R. Martin, dated December 6, 1975. It explains the State's reasons for seeking lands in the area of Iliamna Lake and within the proposed Iliamna National Resource Range:

*In the Lake Iliamna and Bristol Bay National Resource Range Proposal approximately 15 percent of the lands will be under the control of private Native corporations. The State can more effectively administer to the requirements of its citizens in those areas if it owns the other lands within that region. Additionally, the tremendous dependence upon the salmon fishery resources of that region, and the current responsibility of the State to manage those resources, argue cogently that the State should also control the uplands in that area.*⁹⁵

Third, the committee files contain (1) an "Outline for Oral Presentation" of "An Analysis of Issues Related to the Proposed Cook Inlet Land Trade," by David Jackman and John Katz, dated February 11, 1976, and presented orally by them at a Joint Resources Committee

94. Press Release, DNR, Background—Cook Inlet Land Trade Proposal (on file at Anchorage Law Library, Alaska Leg. Comm. Files, 1975–1976, fiche no. 279) (emphasis added).

95. Memorandum, M.C.T. Smith to Guy R. Martin, *supra* note 85, at 8. (emphasis added).

hearing on that date, and (2) DNR's written response, titled "Proposed Cook Inlet Land Trade (Department of Natural Resources' Response to Jackman-Katz Analysis)," dated February 12, 1976.⁹⁶ The Jackman-Katz outline summarizes the arguments for and against various provisions in the land exchange. With respect to lands in the area of Iliamna Lake and the Iliamna National Resource Range proposal, the outline states:

Protection of Bristol Bay Fishery Values

ARGUMENT FOR: "In the Lake Iliamna and Bristol Bay National Resource Range Proposal approximately 15 percent of the lands will be under the control of private Native corporations. The State can more effectively administer to the requirements of its citizens in those areas if it owns the other lands within that region. Additionally, the tremendous dependence upon the salmon fishery resources of that region, and the current responsibility of the State to manage those resources, argue cogently that the State should also control the uplands in that area."

ARGUMENT AGAINST: The State will get no lands at all in the Iliamna watershed which is the critical area for the Bristol Bay fisheries. The lands the State will receive in the Mulchatna drainage are much less important from a fisheries standpoint. Irrespective of the proposed trade, the State will have an opportunity recognized in §17(d) of ANCSA to select lands in the Iliamna drainage within the Bristol Bay village withdrawals after Native selections are completed. The State has other regulatory tools such as the Anadromous Fish Stream Act [sic] which can be used to protect fisheries habitats.⁹⁷

DNR's response rebutted the above "Argument Against," and asserted that under the land exchange, "[u]p to eight townships come from the Iliamna watershed" to be conveyed to the State.⁹⁸ In effect, DNR was asserting that state ownership of land in these watersheds, not merely permitting statutes such as the Anadromous Fish Act, was the best way to protect the area's fish habitat.

96. David Jackman & John Katz, Outline for Oral Presentation of An Analysis of Issues Related to the Proposed Cook Inlet Land Trade (Feb. 11, 1976) and DNR's Response (Feb. 12, 1976) (on file at Anchorage Law Library, Alaska Leg. Comm. Files, S. Res. Comm., 1975-1976, fiche no. 313). Mr. Jackman was the State Co-Chair of the Federal-State Land Use Planning Commission established by ANCSA, and Mr. Katz was counsel. Eventually, Mr. Katz served eight Alaska governors, most notably as the director of the Governor's Office in Washington, D.C., the State administration's representative there, and also as the Commissioner of Natural Resources from 1981 to 1983.

97. Jackman, *supra* note 96, at 2.

98. DNR's Response, *supra* note 96, at 4.

Finally, the committee files contain a letter from the Federal-State Land Use Planning Commission to U.S. Senator Henry M. Jackson, Chair of the U.S. Senate Committee on Interior and Insular Affairs. The Commission had assisted the parties to the exchange and had supported it because “the State would obtain additional lands in the Bristol Bay watershed, which is of critical importance to the State for its fishery and recreational values.”⁹⁹

Thus, in a final analysis, the State’s goal of conserving uplands in the Bristol Bay drainages to protect fish remained constant, but its *method* of achieving its goal changed in response to fragmenting of land ownership. From 1967 to 1971, when the federal government owned virtually all the land, Governor Hickel and the Alaska Legislature’s method was to support federal efforts to manage the *watersheds* to protect the fisheries, even when doing so meant closing most the land to state selection and closing much of it to new mining claims. Then, after 1971, as land ownership started to fragment, DNR made clear to the public and the Legislature that “the tremendous dependence upon the salmon fishery resources of that region, and the current responsibility of the State to manage those resources, argue cogently that the State should *also control the uplands* in that area,”¹⁰⁰ and “by gaining *control of the remaining public lands*,” the State “would be able to more effectively manage these fisheries in the public interest.”¹⁰¹ This included land closed to state selection, by BLM’s 1967 classification order and by secretarial withdrawal under Section 17 of ANCSA, but acquired by the State through the Cook Inlet Land Exchange, which included the three townships that would later emerge as the site of the Pebble mining claims and the potential Pebble mine and tailings storage facilities. In other words, *the State acquired the lands at Pebble to protect fish*.

5. In 1978, the Alaska Legislature Enacts Comprehensive Land Use Planning Legislation for State Lands, and Establishes Wood-Tikchik State Park.

In 1978, the Alaska Legislature enacted Chap. 181 S.L.A. 1978,¹⁰² which requires DNR to adopt comprehensive land use plans for state lands.¹⁰³ It helps to summarize these statutes and the implementing

99. Letter from B. W. Silcock, Fed. Co-chair, Fed.-State Land Use Planning Comm’n, to Henry M. Jackson, Chair, Sen. Comm. on Interior and Insular Affairs 1–2 (Oct. 30, 1975) (on file at Anchorage Law Library, Alaska Leg. Comm. Files, S. Res. Comm., 1975–1976, fiche no. 314).

100. Memorandum, M.C.T. Smith to Guy R. Martin, *supra* note 85, at 8 (emphasis added).

101. Press Release, DNR, *supra* note 94 (emphasis added).

102. Codified at ALASKA STAT. §§ 38.04.005–38.04.910 (2011).

103. ALASKA STAT. § 38.04.065 (2011).

regulations because DNR subsequently adopted a 1984 Bristol Bay Area Plan for State Lands (1984 BBAP)¹⁰⁴ and the current 2005 Bristol Bay Area Plan for State Lands (2005 BBAP)¹⁰⁵ under these statutes and regulations. Both land use plans include the Kvichak and Nushagak drainages and will be discussed below.

Alaska Statute (A.S.) 38.04.005(a) establishes state policy for land use planning for state lands:

[I]t is the policy of the State of Alaska to plan and manage state-owned land to establish a balanced combination of land available for both public and private purposes. The choice of land best suited for public and private use shall be determined through the inventory, planning, and classification processes set out in AS 38.04.060–38.04.070.¹⁰⁶

A.S. 38.04.060(a) requires DNR to prepare and maintain, on a continuing basis, an inventory of resources and other values on state lands.¹⁰⁷ Under A.S. 38.04.065(a), DNR must, with local governmental and public involvement, adopt, maintain, and, when appropriate, revise “regional land use plans” that provide for the “use and management of state-owned land.”¹⁰⁸ For purposes of developing, adopting and revising these plans, A.S. 38.04.065(b) requires DNR to

- (1) use and observe the principles of multiple use and sustained yield;
- (2) consider physical, economic, and social factors . . . and involve other agencies and the public in . . . a systematic interdisciplinary approach;
- (3) give priority to planning and classification in areas of potential settlement, renewable and nonrenewable resource development, and critical environmental concern;
- (4) rely, to the extent that it is available, on the inventory of the state land, its resources, and other values;
- (5) consider present and potential uses of state land;

104. ALASKA DEP'T OF NATURAL RES., BRISTOL BAY AREA PLAN FOR STATE LANDS (1984) [hereinafter 1984 BBAP], available at http://dnr.alaska.gov/mlw/planning/areaplans/bristol/pdf/bristol_bay_area_plan.pdf.

105. ALASKA DEP'T OF NATURAL RES., BRISTOL BAY AREA PLAN FOR STATE LANDS (2005) [hereinafter 2005 BBAP], available at <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>.

106. ALASKA STAT. § 38.04.005(a) (2011).

107. *Id.* § 38.04.060(a).

108. *Id.* § 38.04.065(a).

(6) consider the supply, resources, and present and potential use of land under other ownership within the area of concern;

(7) plan for compatible surface and mineral land use classifications; and

(8) provide for meaningful participation . . . by affected local governments, state and federal agencies, adjacent landowners, and the general public.¹⁰⁹

A.S. 38.04.065(c) provides that each regional plan must identify and delineate “(1) areas of settlement and settlement impact . . . and (2) areas that must be retained in state ownership and planned and classified for various uses and purposes under A.S. 38.04.015.”¹¹⁰ A.S. 38.04.015 provides in part that the primary public interests served by retaining areas of state land surface in public ownership are

(1) to make them available on a sustained-yield basis for a variety of beneficial uses including subsistence, . . . sport hunting and fishing, hiking, . . . and other activities of a type which can generally be made available to more people . . . if the land is in public rather than private ownership;

(2) to facilitate mining and mineral leasing by managing appropriate public land for surface uses which are compatible with subsurface uses;

(3) to protect critical wildlife habitat and areas of special scenic, recreational, scientific, or other environmental concern¹¹¹

A.S. 38.04.065(h) provides that after adoption of a regional plan, land classifications shall be made under the adopted plan.¹¹²

Regulations at title 11, chapter 55 of the Alaska Administrative Code (A.A.C.) implement A.S. 38.04. An area plan generally has an operative life of about twenty years,¹¹³ and is a regional plan, which must include “land classifications” and “management guidelines and stated management intent, representing department policies to guide the actions of the department when making land use decisions, directing land management and ensuring compatibility among competing land uses.”¹¹⁴ “Classification” means “designation of land according to its *primary* use, and in a manner that will provide maximum benefit to the people of

109. *Id.* § 38.04.065(b).

110. *Id.* § 38.04.065(c).

111. *Id.* § 38.04.015.

112. *Id.* § 38.04.065(h).

113. *See, e.g.*, 2005 BBAP, *supra* note 105, at A-10 (definition of “planning period”).

114. ALASKA ADMIN. CODE tit. 11, § 55.030(a), (c)(4), (c)(6) (2011).

Alaska.”¹¹⁵ A classification “identifies the primary use for which the land will be managed, subject to valid existing rights and multiple use”; in addition, “the department may authorize other uses that do not conflict with the plan.”¹¹⁶ Classification “reflects surface impacts of surface or subsurface uses, or both.”¹¹⁷ A classification takes effect when the commissioner signs a land classification order, which converts designated uses to land classifications.¹¹⁸ A parcel may have up to three co-classifications when a particular use is not designated as dominant.¹¹⁹ The regulations establish and define seventeen land classification categories.¹²⁰ These include a “public recreation land” classification category, defined as including land used for recreational hunting, fishing, and greenbelts along bodies of water.¹²¹ Pursuant to A.S. 38.04.065(c)(2) and A.S. 38.04.015, classifications such as habitat, public recreation, and mineral land require that land so classified remain in public ownership.¹²² Other classifications, such as settlement land and resource management land, do not carry this requirement.

Thus, DNR’s area plans essentially perform two types of functions. First, DNR divides the state land in an area into planning units, designates the primary use(s) of each unit, and upon adoption of the plan, a land classification order converts the designated primary use(s) to “classification(s).” Second, the plan adopts area-wide guidelines and unit-specific statements of management intent. All classifications are, initially, multiple-use classifications, but if uses are incompatible or cannot be made compatible, then a designated use for which a unit is classified has priority over an incompatible undesignated use.¹²³ DNR uses the classifications, guidelines, and statements of management intent to adjudicate applications for permits, leases, rights-of-way, etc., as well as to authorize sales and conveyances.¹²⁴

Also in 1978, the Legislature established the Wood-Tikchik State Park, which encompasses the Wood River and Tikchik Lakes, which are major sockeye salmon spawning and rearing areas of the Nushagak

115. *Id.* § 55.280(1) (emphasis added).

116. *Id.* § 55.040(c).

117. *Id.* § 55.040(a).

118. *Id.* § 55.272; see also 2005 BBAP, *supra* note 105, at 4-5 to -6 (“conversion tables”).

119. See ALASKA ADMIN. CODE tit. 11, § 55.040(d) (2011).

120. *Id.* §§ 55.050–.230.

121. *Id.* § 55.160. However, the regulations lack a comparable category for land used for *subsistence* hunting and fishing, even though subsistence is the *first* use listed in ALASKA STAT. §38.04.015(1) (2011), which states the purposes and uses for which land will be planned and classified for retention pursuant to ALASKA STAT. §38.04.065(c)(2) (2011).

122. ALASKA STAT. §§ 38.04.065(c)(2), 38.04.015 (2011).

123. See ALASKA ADMIN. CODE tit. 11, § 55.040(c) (2011).

124. See 2005 BBAP, *supra* note 105, at 1–5.

drainage.¹²⁵ The enabling statutes provide that “[t]he fish and wildlife habitat breeding areas in the Wood-Tikchik State Park shall be managed to sustain the fish and wildlife resources of the park in perpetuity.”¹²⁶

6. From 1977 to 1980, Congress Considered and Enacted the Alaska National Interest Lands Conservation Act, Which Establishes the Bristol Bay Cooperative Region.

From 1977 to 1980, Congress actively considered Alaska lands legislation to create or expand conservation system units in Alaska, as initiated by Section 17(d)(2) of ANCSA.¹²⁷ The State and Governor Jay Hammond advocated a federal-state cooperative planning region in the Bristol Bay drainages, so as to plan for integrated conservation and development across the fragmented, federal-state-Native land ownership pattern that was emerging there.¹²⁸ In 1979, the U.S. House of Representatives, Committee on Merchant Marine and Fisheries, reported out H.R. 39, which included a provision to establish a “Bristol Bay Cooperative Region” and a process to develop a cooperative land use plan¹²⁹ similar to that developed in conjunction with local communities by the planning agency for the Adirondack Forest Preserve and Park in New York State, where the state legislature had recognized “the unique land ownership pattern” and “the intermingling of public and private lands,” and had mandated a cooperative land use plan “to reflect the actual and projected uses of private lands” in the Adirondack area.¹³⁰

In early 1980, the Department of the Interior issued several supplements to the 1974 EISs on proposed federal conservation units. These included a supplement to the 1974 EIS on the proposed Iliamna Natural Resource Range.¹³¹ It addressed the possibility that Congress would not act, and proposed two alternatives: (1) withdrawing the federal land under Section 204(c) of the Federal Land Policy and Management Act to create an Iliamna National Wildlife Refuge administered by the U.S. Fish and Wildlife Service (USFWS); or (2) withdrawing the federal land under the Antiquities Act to create a

125. Codified at ALASKA STAT. § 41.21.161 (2011).

126. Codified at ALASKA STAT. § 41.21.166 (2011).

127. See 43 U.S.C. § 1616(d)(2) (2010).

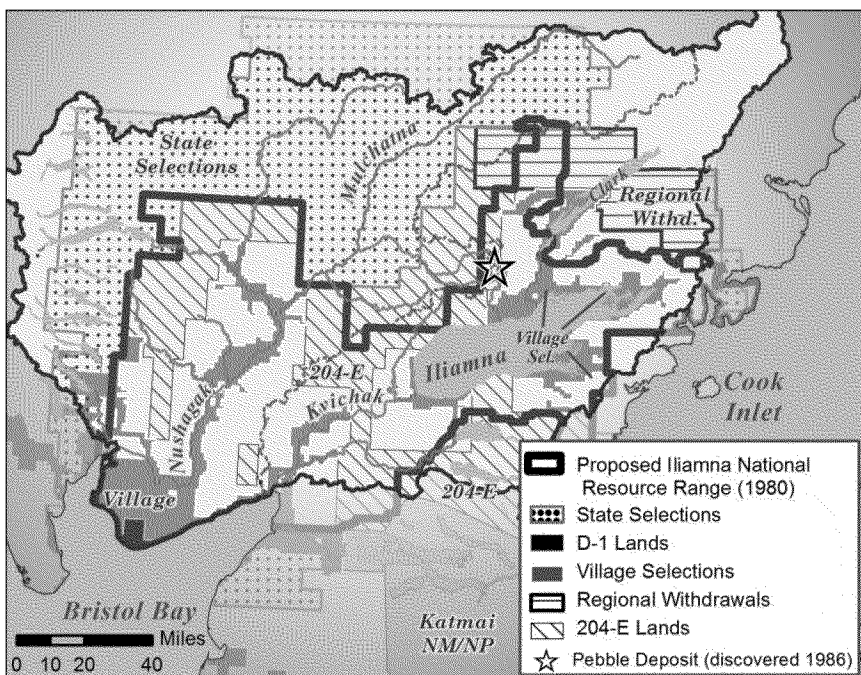
128. H.R. REP. NO. 96-97, pt. II, Alaska National Interest Lands Conservation Act, Committee on Merchant Marine and Fisheries 163 (1979).

129. H.R. 39, § 306 in H.R. REP. NO. 96-97, pt. II, Alaska National Interest Lands Conservation Act, Committee on Merchant Marine and Fisheries 16–19 (1979).

130. H.R. REP. NO. 96-97, pt. II, Alaska National Interest Lands Conservation Act, Committee on Merchant Marine and Fisheries 163 (1979).

131. See, e.g., DEP’T OF THE INTERIOR, FINAL ENVIRONMENTAL IMPACT SUPPLEMENT ON ALTERNATIVE ADMINISTRATIVE ACTIONS FOR THE PROPOSED ILIAMNA NATIONAL RESOURCE RANGE (1980).

national monument administered by USFWS.¹³² Such an area would be closed to new mining claims¹³³ and would have included land at and adjacent to what are now the Pebble claims and other deposits in the area.¹³⁴ Also, because Native selections had become clearer since the 1974 EIS, the fragmented land ownership pattern had also become clearer.



Map 3. Land Status, 1980 Supplement to EIS on Proposed Iliamna National Resource Range.

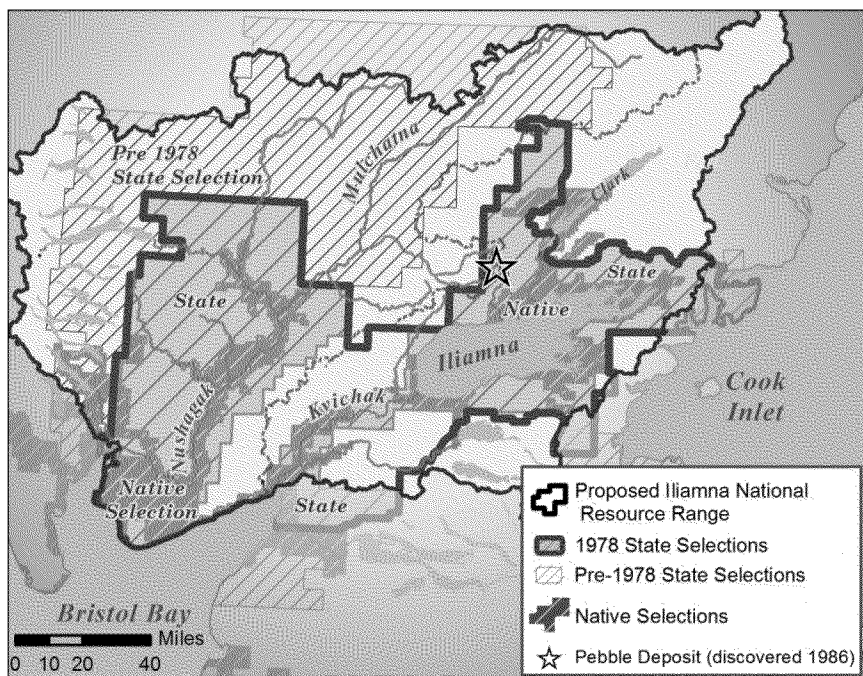
Meanwhile, the State in 1978 had filed applications under the Statehood Act to select nearly all federal land within the Iliamna proposal.¹³⁵ This included top-filing state selections on most Native village selections.

132. *Id.* at i.

133. *Id.* at iii-iv.

134. *See id.* at 11 (Map 2, Land Status). As the federal legislation evolved, Congress moved the federal lands in the Alagnak drainage (which had been within the 1974 proposed Iliamna Natural Resource Range) into the proposed expansion of the Katmai National Monument that would be renamed the Katmai National Park and Preserve, and moved the lands surrounding the southern portion of Lake Clark into the proposed Lake Clark National Park and Preserve.

135. *See id.* at 17 (Map 4, State lands applied for November 14, 1978).



Map 4. State Sections of November 14, 1978, in 1980 Supplement to EIS on Proposed Iliamna National Resource Range

Regarding the EIS supplements, DNR consolidated and attached state agency comments,¹³⁶ which included those of DNR's Division of Geological and Geophysical Survey, which documented known mineral deposits, and found that "[m]uch of the Iliamna National Resource Range has a relatively low mineral potential," but that a portion of the area was "considered to have high mineral potential."¹³⁷ DNR's cover letter to these consolidated state agency comments stated:

With respect to the Iliamna supplement in particular, the State would like to see the option of state ownership elevated to an "Alternative Action" from its present position as a mere possibility under the "No Action" alternative. We think such treatment is justified for several reasons. First, *the State's ownership interest in the Iliamna-Nushagak area has long been a matter of record. The State has, through a systematic land evaluation and selection process, identified some 4 million acres of land in this area as being suitable and desirable for state ownership. The State's interest here*

¹³⁶. *Id.* at 83–117.

¹³⁷. *Id.* at 96–98 (Memorandum from T. K. Bundtzen, Mining Geologist, DNR Div. of Geological & Geophys. Surveys, to J. Wickes, Acting Dir., DNR Div. of Planning and Research (Apr. 22, 1980)).

*relates to these lands' habitat value for the Bristol Bay salmon fishery.*¹³⁸

Thus, the stated overarching reason that the State of Alaska sought to acquire lands in the Kvichak and Nushagak drainages was because of their "habitat value for the Bristol Bay salmon fishery," notwithstanding the fact that the State was also aware of mineral deposits in the area. Similarly, the comments of the Alaska Department of Fish and Game (ADF&G) on the Iliamna supplement focused on the fragmented land ownership. ADF&G estimated that Native corporations would eventually own about 1.4 million acres, and the State about 0.1 million acres, of the 3-million-acre proposed range.¹³⁹

The State's desire to obtain the lands to protect fish, and the fragmented pattern of ownership, led Congress to enact, instead, Title XII of ANILCA, which seeks federal-state cooperation in land use planning.¹⁴⁰ Section 1201 established the Alaska Land Use Council. It had federal and state co-chairs and was composed of representatives of the various federal and state agencies, and two representatives selected by ANCSA regional corporations.¹⁴¹ Section 1201(j)(1) required the Council to "recommend cooperative planning zones" consisting of areas in which the management of lands or resources by one landowner materially affects the management of lands or resources of another owner or owners including the Bristol Bay drainages.¹⁴² This section also encourages federal members to enter into cooperative agreements with the State and local agencies and with Native Corporations for mutual consultation and coordination of resource management plans and programs within such zones.¹⁴³ With respect to lands, waters, and interests which are subject to cooperative agreement, Section 1201(j)(2) authorizes the Secretary of the Interior to provide technical and other assistance to the non-federal landowners with respect to fire control, trespass control, law enforcement, resource use, and planning, without reimbursement if the Secretary determined that to do so would further the purposes of the cooperative agreement and would be in the public interest.¹⁴⁴

138. *Id.* at 84 (Letter from A. Mathews, Dir., DNR Div. of Res. & Dev., to Area Dir., Heritage Cons. and Rec. Serv., DOI, and to Area Dir., USFWS, DOI (May 5, 1980)) (emphasis added).

139. *See id.* at 113 (Letter from R. Skoog, Comm'r, ADF&G, to J. Katz, Spec. Counsel to Governor (May 8, 1980)).

140. *See* ANILCA, Pub. L. 96-487, §§ 1201-03, 94 Stat. 2371, 2466-72 (1980).

141. *Id.*

142. *Id.*

143. *Id.*

144. *Id.*

Section 1203 establishes the Bristol Bay Cooperative Region, containing all land from the Bering Sea coast in the vicinity of Quinhagak, Alaska, east across the drainages of the Nushagak and Kvichak Rivers, and south to the end of the Alaska Peninsula, except National Park Service land.¹⁴⁵ Section 1203 directed that if the State elected to participate, then the Secretary of the Interior and the State would prepare a cooperative land use plan, for which the purposes were to be as follows:

- (1) to conserve the fish and wildlife and other significant natural and cultural resources within the region;
- (2) to provide for the rational and orderly development of economic resources within the region in an environmentally sound manner;
- (3) to provide for such exchanges of land among the Federal Government, the State, and other public or private owners as will facilitate the carrying out of paragraphs (1) and (2);
- (4) to identify any further lands within the region which are appropriate for selections by the State under §6 of the Alaska Statehood Act and this Act; and
- (5) to identify any further lands within the region which may be appropriate for congressional designation as national conservation system units.¹⁴⁶

ANILCA affirmed the validity of the state land selections filed in 1978 and opened to state selection all land previously classified under the Classification and Multiple Use Act.¹⁴⁷ Hence, on November 2, 1981, BLM cancelled eight old land classifications under that Act, totaling 32 million acres in Alaska, including the 6.5-million-acre Iliamna Unit classification issued in 1967, when the land there was still 99.8% federally owned.¹⁴⁸ In understatement, BLM explained that “numerous actions” affecting these lands had occurred since these old classifications, in particular the passage of ANSCA and ANILCA, and that “[m]uch of the classified land has been selected by the State of

145. 94 Stat. at 2470–72. Section 1203 states that the land in the cooperative region is generally depicted on a map entitled “Bristol Bay-Alaska Peninsula,” dated October 1979. *See also* STATE OF ALASKA & U.S. DEP’T OF THE INTERIOR, PROPOSED BRISTOL BAY COOPERATIVE MANAGEMENT PLAN AND REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT (1984) [hereinafter PROPOSED BBCMP] (including map of the cooperative planning area).

146. 94 Stat. at 2470–72. Both §§ 1201 and 1203 of ANILCA are silent about affected Alaska Native tribal entities. Neither invokes the government-to-government relationship these entities have with the United States for purposes of land use planning. This omission will be addressed further below.

147. 94 Stat. at 2438–39.

148. Cancellation of Classification of Public Lands, 46 Fed. Reg. 56,058 (Nov. 2, 1981).

Alaska or Native corporations, or has been included in new national parks, forests, and wildlife refuges”; and, consequently, the cancellations were “primarily for record clearing purposes.”¹⁴⁹ Thus, within the watersheds of Iliamna Lake and the Nushagak River, the State would become the predominant owner of most uplands, while Native corporations would own substantial riparian and littoral lands.

7. From 1981 to 1984, the State and Federal Governments, and Local Interests, Tried Cooperative Land Use Planning Within the Bristol Bay Cooperative Planning Region, Progressed Almost to Completion, but Ultimately Failed.

From 1981 to 1984, the Alaska Land Use Council pursued a federal-state cooperative land use plan under Section 1203 of ANILCA.¹⁵⁰ To do so, the Council established an eight-member Bristol Bay Study Group composed of a representative of each of the Alaska Department of Fish and Game, Alaska Department of Natural Resources, Aleutians East Coastal Resource Service Area, Bristol Bay Borough Coastal Management Planning District, Bristol Bay Coastal Resource Service Area, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the Bristol Bay Native Association (BBNA) to represent diverse “Native Interests.”¹⁵¹ In 1983, during this effort, BBNA passed resolutions opposing any land disposals in the region and urging the Alaska Legislature to enact legislation to manage exclusively for subsistence and recreational uses all lands within five miles of the Nushagak River (including its major tributaries Nuyakuk, Mulchatna, Kokwok, Koktuli, Swan, King Salmon, and Chichitnok rivers), the Kvichak River, and Iliamna Lake.¹⁵²

Ultimately, the Council and the Study Group did not succeed. On August 6, 1984, Governor Sheffield notified the Secretary of the Interior that the State was withdrawing from the cooperative planning process, because it had broken down over issues of state oversight and enforcement of the plan on federal lands and federal oversight and

149. *Id.*

150. See PROPOSED BBCMP, *supra* note 145.

151. *Id.* at 1–3.

152. *Id.* at G-174. If BBNA’s resolution requesting state legislation had led to such a statute, the current dispute over the Pebble deposits would have been avoided, because they are within five miles of the Koktuli River and the Pebble claims were staked in 1986, as noted below. The resolution refers to the “Chichitna” River which is outside the Bristol Bay drainages, so the author assumes this was a typographic error and meant the Chichitnok River, a major tributary to the Nushagak River.

enforcement of the plan on state lands.¹⁵³ In essence, the disparate ownership of land defeated cooperative planning for the fish and wildlife that are oblivious to such ownership distinctions.

8. From 1984 to 2005, the State's 1984 Bristol Bay Area Plan Gave Primary Recognition to Fish and Wildlife and Public Uses of Them by Classifying all Twelve Million Acres of State Uplands and Beds of Freshwaters as Habitat.

On September 14, 1984, acting under state land use planning statutes at A.S. 38.04, the Alaska Department of Natural Resources adopted, jointly with the Alaska Department of Fish and Game and the Alaska Department of Environmental Conservation, the twenty-year 1984 Bristol Bay Area Plan for State Lands.¹⁵⁴ The 1984 BBAP designated fish and wildlife habitat as a primary use of all twelve million acres of state-owned or state-selected land in the Bristol Bay drainages,¹⁵⁵ so a DNR land classification order classified all the land accordingly to the land classification categories at 11 A.A.C. 55.050-.230.¹⁵⁶ With respect to all land above the high tide line, the 1984 BBAP made co-designations, such as (1) habitat/public recreation land, (2) habitat/public recreation/oil and gas land, or (3) habitat/public recreation/mineral land.¹⁵⁷ In the case of lands at and proximate to what are now the Pebble claims, the 1984 BBAP co-designated all the land as habitat/public recreation land and a portion as habitat/public recreation/mineral land.¹⁵⁸ Corresponding co-classifications resulted.¹⁵⁹ The effect of co-designating and co-classifying land as habitat/public recreation/mineral land is that all three uses are "primary" uses. Under 11 A.A.C. 55.040(c), these co-classifications, in effect, required that any mineral development be compatible with habitat and public recreation, because all three designations and classifications were "peers" of each other, such that any one of the three designated uses did not take precedence over another.

153. Letter from Bill Sheffield, Governor, State of Alaska, to William P. Clark, Sec'y of the Interior (Aug. 6, 1984) (on file with State of Alaska Archives).

154. See 1984 BBAP, *supra* note 104.

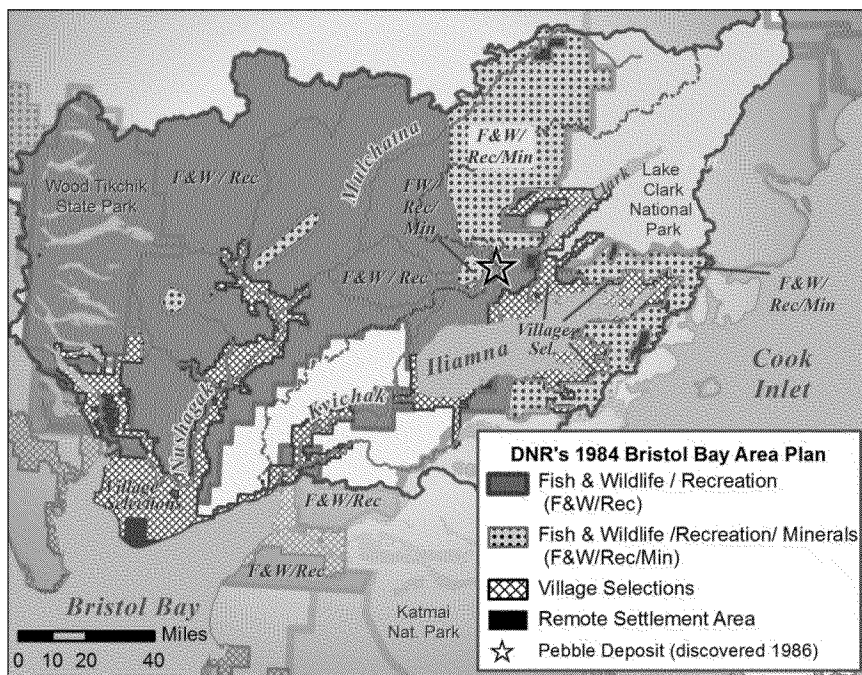
155. *Id.* at Map, Primary Land Uses on State Lands (in PDF document at 248); *see also id.* at 3-1 to -71.

156. *See id.* at 3-1 to -71, 5-1 to -2; *see also* 2005 BBAP, *supra* note 105, at 4-5 to -6 (conversion tables).

157. 1984 BBAP, *supra* note 104, at Map, Primary Land Uses on State Lands.

158. *Id.*

159. *See* 1984 BBAP, *supra* note 104, at 5-1 to -2, and ch. 3, Units 6, 10; *see also* 2005 BBAP, *supra* note 105, at 4-5 to -6 (conversion tables).



Map 5. Primary Uses/Land Classifications, Kvichak and Nushagak Drainages, from 1984 BBAP.

In adopting the 1984 BBAP, DNR contemporaneously issued Mineral Closing Order (MCO) No. 393, effective September 13, 1984. It closes to new mineral entry approximately 214,000 acres of state land comprised of sixty-four anadromous streams and adjacent uplands for one hundred feet on each side of the ordinary high-water mark, including Upper Talarik Creek and much of Koktuli River, where these streams traverse lands that would later be adjacent to, or in proximity to, the Pebble claims.¹⁶⁰ The closures are based on “findings of the [DNR] Commissioner” that “development of mining claims [within this area] creates an incompatible surface use conflict with salmon propagation and production, and jeopardizes the economy of the Bristol Bay region and the management of the commercial, sport and subsistence fisheries in the Bristol Bay area,” and that “the best interest of the state and its residents” is served by the mineral closure.¹⁶¹ This action was supported by a

160. See Alaska Dep’t of Natural Res., MCO No. 393 (Sept. 13, 1984), available at http://dnr.alaska.gov/projects/las/Case_Abstract.cfm?FileType=MC_O&FileNumber=393&LandFlag=y (last visited Mar. 22, 2012) (Website provides a summary of MCO No. 393. Page numbers in following citations are from “attachments”).

161. *Id.* at 2 (Findings of the Commissioner).

similar, and accompanying, more detailed “Justification for Stream Closures.”¹⁶² At that time, DNR was apparently concerned about placer mining and processing in or near anadromous fish streams, and the Pebble hard rock mining claims were yet to be staked.¹⁶³

The 1984 BBAP responded favorably to BBNA’s 1983 resolution by calling for an interagency study by DNR, ADF&G, BLM and USFWS to address the concept of creating “special management corridors or public reserve lands that would be managed entirely and exclusively for traditional and public recreational uses,” and “the need for cooperative land management agreements to ensure maintenance of fish and wildlife used for subsistence and recreation.” The 1984 BBAP called for this study to be “coordinated with private land owners (particularly Native corporations), lodge owners, guides, sport fish organizations and other interested parties.”¹⁶⁴

With respect to recreation, the 1984 BBAP recognized that “[t]he Bristol Bay region has long been known by sportsmen for its trophy fishing and big game hunting opportunities.”¹⁶⁵ The 1984 BBAP co-designated (and DNR therefore co-classified) the vast majority of uplands and shorelands—about 11 million acres—for public recreation.¹⁶⁶ It defined “recreation” as including virtually “all forms of outdoor public recreational activities, ranging from hunting and fishing to river-floating and snowmachining.”¹⁶⁷

In 1986, Cominco American, Inc. staked and recorded the first of its Pebble claims.¹⁶⁸

In 1988, Alaska Department of Natural Resources, the Alaska Department of Fish and Game, and the Bristol Bay Coastal Resource Service Area¹⁶⁹ published a resource assessment of the Nushagak-Mulchatna drainage, in order prepare a Nushagak-Mulchatna Rivers

162. *Id.* at 13–23 (Attachment 2: Justification for Stream Closures).

163. “Placer mining” involves mining for loose precious metals (e.g., gold nuggets) deposited in or adjacent to stream beds. Hence, when MCO No. 393 closed streams and adjacent lands, it was directed at placer mining. “Hard rock mining” is mining deposits in solid rock and processing of ore, as would occur at the Pebble deposit.

164. 1984 BBAP, *supra* note 104, at 5–8.

165. *Id.* at 2–30.

166. *Id.* at Map, Primary Land Uses on State Lands. This estimate is based on the map of designated uses.

167. *Id.* at B-3.

168. ALEX PRUD’HOMME, *THE RIPPLE EFFECT: THE FATE OF FRESHWATER IN THE TWENTY-FIRST CENTURY* 305–06 (2011).

169. The Bristol Bay Coastal Resource Service Area is a special service area created for the purpose of coastal management to allow its residents to participate in local coastal management even though the area is not within an organized borough. BRISTOL BAY COASTAL RESOURCE SERVICE AREA COASTAL MANAGEMENT PLAN, FINAL PLAN AMENDMENT 2 (Jan. 2008), available at http://alaskacoast.state.ak.us/District/DistrictPlans_Final/BBCRSA/BB_Final_Plan_Amendment.pdf.

Recreation Management Plan, adopted by DNR in 1990 as an amendment to the 1984 BBAP.¹⁷⁰ This assessment arose in part out of public concerns for both subsistence and recreation, and it sought to protect both, minimize conflicts, and protect existing recreational quality.¹⁷¹ The Nushagak-Mulchatna Rivers Recreation Management Plan of 1990 (1990 Rivers Plan) applied to all state land in the Nushagak-Mulchatna drainage.¹⁷² It did not classify or reclassify land, but instead created three designations for the level of recreational development that DNR would permit on these state lands, that is, (1) semi-developed, (2) semi-primitive, and (3) primitive.¹⁷³ The lands in the Kaktuli River drainage in proximity to the western portion of the Pebble claims were designated as primitive.¹⁷⁴ Long-term uses associated with mining and mineral exploration would be allowed if consistent with the applicable guidelines of the 1990 Rivers Plan and those aspects of management intent other than prohibitions.¹⁷⁵ Thereafter, the Bristol Bay Coastal Resources Service Area Board adopted the 1990 Rivers Plan as a plan for an “Area Meriting Special Attention” under the Alaska Coastal Management Program.¹⁷⁶

170. See ALASKA DEP'T OF NATURAL RES., NUSHAGAK & MULCHATNA RIVERS RECREATION MANAGEMENT PLAN (1990), available at http://dnr.alaska.gov/mlw/planning/mgtplans/nushagak_mulchatna/pdf/Nushagak_&_Mulchatna_Rivers_Recreation_Management_Plan.pdf.

171. *Id.* at 1.

172. *Id.*

173. See *id.* at 5.

174. *Id.*

175. *Id.* at 11.

176. See BRISTOL BAY COASTAL RESOURCE SERVICE AREA COASTAL MANAGEMENT PLAN, FINAL PLAN AMENDMENT, *supra* note 169, at 2. Alaska Statute § 46.40.210 defined an “area which merits special attention” as:

a delineated geographic area within the coastal area which is sensitive to change or alteration and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use of the resources to a conflicting or incompatible use, warrants special management attention, or which, because of its value to the general public, should be identified for current or future planning, protection, or acquisition; these areas, subject to the department's definition of criteria for their identification, include:

- (A) areas of unique, scarce, fragile or vulnerable natural habitat, cultural value, historical significance, or scenic importance;
- (B) areas of high natural productivity or essential habitat for living resources;
- (C) areas of substantial recreational value or opportunity;
- (D) areas where development of facilities is dependent upon the utilization of, or access to, coastal water;
- (E) areas of unique geologic or topographic significance which are susceptible to industrial or commercial development;
- (F) areas of significant hazard due to storms, slides, floods, erosion, or settlement; and
- (G) areas needed to protect, maintain, or replenish coastal land or resources, including coastal flood plains, aquifer recharge areas, beaches, and offshore sand deposits.

ALASKA STAT. § 46.40.210 (repealed 2011).

9. In 2000, the Alaska Board of Fisheries Adopts a Sustainable Salmon Management Policy that Addresses Habitat, Establishes a “Precautionary Approach” to Scientific Uncertainty, and Guides the Board’s Interaction with Other Agencies.

In 2000, the Alaska Board of Fisheries adopted its “Policy for the Management of Sustainable Salmon Fisheries.”¹⁷⁷ The Policy recognizes a need for “sound, precautionary, conservation management practices” and for a framework of “guiding principles and criteria,” including a “precautionary approach” to be used by the Board in managing fisheries and in dealing with other agencies on matters of habitat.¹⁷⁸ The Policy states that its goal “is to ensure conservation of salmon and salmon’s required marine and aquatic habitats, protection of customary and traditional subsistence uses and other uses, and the sustained economic health of Alaska’s fishing communities.”¹⁷⁹ Then, it establishes “principles and criteria” for managing salmon fisheries, including many that focus on protecting habitat *before* harm occurs, as opposed to mitigation of harm or restoration of harm. These include

(1) wild salmon stocks and the salmon’s habitats should be maintained at levels of resource productivity that assure sustained yields as follows:

(A) salmon spawning, rearing, and migratory habitats should be protected as follows:

(i) *salmon habitats should not be perturbed beyond natural boundaries of variation;*

(ii) scientific assessments of possible adverse ecological effects of proposed habitat alterations and the impacts of the alterations on salmon populations should be conducted *before* approval of a proposal;

...

(iv) *all essential salmon habitat* in marine, estuarine, and freshwater ecosystems and access of salmon to these habitats *should be protected; essential habitats include spawning and incubation areas, freshwater rearing areas, estuarine and nearshore rearing areas, offshore rearing areas, and migratory pathways;*

(v) salmon habitat in fresh water should be protected on a *watershed basis*, including appropriate management of riparian zones, water quality, and water quantity;

177. ALASKA ADMIN. CODE tit. 5, § 39.222 (2011).

178. *See id.* § 39.222(a).

179. *Id.* § 39.222(b).

(B) *salmon stocks should be protected within spawning, incubating, rearing, and migratory habitats;*

...

(D) *effects and interactions of introduced or enhanced salmon stocks on wild salmon stocks should be assessed; wild salmon stocks and fisheries on those stocks should be protected from adverse impacts from artificial propagation and enhancement efforts;*

...

(5) *in the face of uncertainty, salmon stocks, fisheries, artificial propagation, and essential habitats shall be managed conservatively as follows:*

(A) *a precautionary approach, involving the application of prudent foresight that takes into account the uncertainties in salmon fisheries and habitat management, the biological, social, cultural, and economic risks, and the need to take action with incomplete knowledge, should be applied to the regulation and control of harvest and other human-induced sources of salmon mortality; a precautionary approach requires*

(i) *consideration of the needs of future generations and avoidance of potentially irreversible changes;*

(ii) *prior identification of undesirable outcomes and of measures that will avoid undesirable outcomes or correct them promptly;*

...

(iv) *that where the impact of resource use is uncertain, but likely presents a measurable risk to sustained yield, priority should be given to conserving the productive capacity of the resource;*

(v) *appropriate placement of the burden of proof, of adherence to the requirements of this subparagraph, on those plans or ongoing activities that pose a risk or hazard to salmon habitat or production;*

(B) *a precautionary approach should be applied to the regulation of activities that affect essential salmon habitat.*¹⁸⁰

The Policy provides that the Board and Alaska Department of Fish and Game shall use these principles, including the “precautionary approach,” in corresponding with other governmental agencies and officials to address matters of habitat “outside the authority of the

180. *Id.* § 39.222(c) (emphasis added).

department or the board.”¹⁸¹ Thus, like Section 404(c) of the Clean Water Act, the Policy seeks to protect salmon habitat, regardless of land ownership, by establishing “principles and criteria.” Moreover, like EPA’s potential use of Section 404(c) in this instance *before* permit applications are filed, the Policy includes a “precautionary approach” for protecting habitat *before* harm occurs, as opposed to mitigation of, or restoration of, harm after it occurs. In other words, EPA’s potential use of Section 404(c) is *consistent* with the State’s Policy for the Management of Sustainable Salmon Fisheries.

C. From 2005 to Present, DNR’s 2005 Bristol Bay Area Plan Departs from the State’s Long History of Giving Primary Recognition to Managing Uplands to Protect Fish and Fisheries

On April 19, 2005, DNR adopted its current 2005 Bristol Bay Area Plan.¹⁸² With respect to fish and wildlife habitat, the 2005 BBAP states a goal of protecting fish and wildlife habitat¹⁸³ and establishes guidelines for mitigating harm to “habitat areas,”¹⁸⁴ which appears to refer to lands for which the designated primary use is “habitat.” However, the 2005 BBAP reduces the inland upland acreage for which habitat is designated a primary use, and classified as such, by ninety-three percent—from nearly 12 million acres in the 1984 BBAP¹⁸⁵ to 768,000 acres in the 2005 BBAP.¹⁸⁶ The 2005 BBAP acknowledges that “[m]ost of the areas designated ‘Ha’ [meaning habitat areas] are tidelands, shorelands, and submerged land areas; few upland management units were given this designation.”¹⁸⁷

The 2005 BBAP designates the lands at and surrounding all mineralized areas, including the Pebble claims and other metallic sulfide deposits, as solely as mineral land, and DNR therefore classified them as such.¹⁸⁸ The only uplands that retained a habitat designation are in several stream corridors of the Nushagak drainage, and in legislatively

181. *Id.* § 39.222(d)(6).

182. 2005 BBAP, *supra* note 105 (DNR Commissioner’s adoption signature inside cover).

183. *Id.* at 2-8.

184. *Id.*

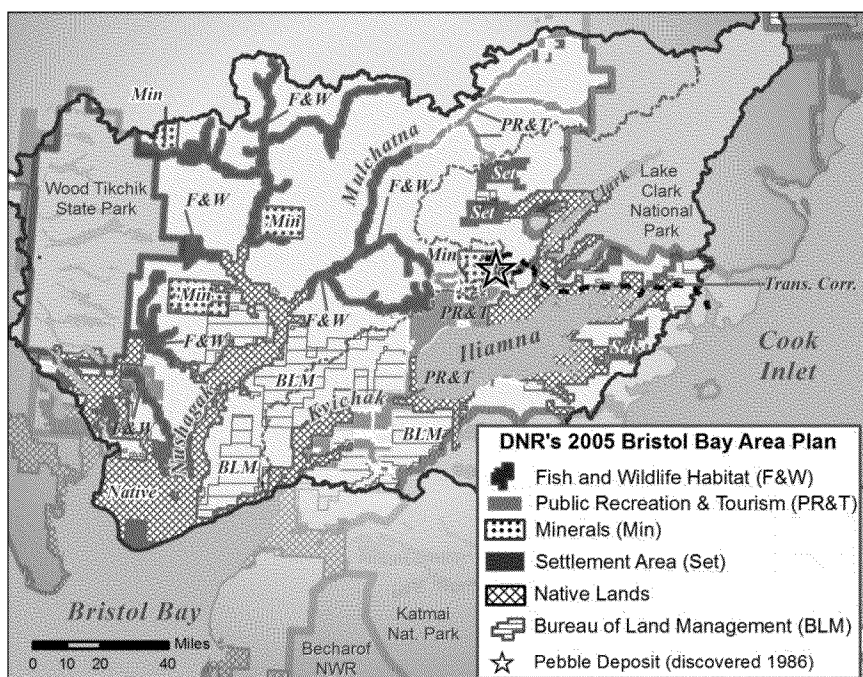
185. 1984 BBAP, *supra* note 104, at 1-5.

186. 2005 BBAP, *supra* note 105, at 4-4.

187. *Id.* at 2-9.

188. *Id.* at 3-102, -109, -111, -112, -118, -175 (lands designated solely mineral, such that mining and mineral exploration are the sole primary use, are: Units R06-03 (“Shotgun”), R06-18 (“Sleitit”), R06-23 (“Pebble”), R06-24 (“Pebble Streams”), R06-36 (“Kemuk”) and R10-02 (“Pebble2”); *see also* Land Classification Order No. SC 04-002 in 2005 BBAP *supra* note 105, at app. B.

designated fish and game refuges.¹⁸⁹ With respect to the Koktuli River and adjacent state lands, they are designated (1) as solely “mineral land” within drainages of the upper reaches of the North and South Forks of the Koktuli River where the Pebble claims and other mining claims are located, (2) as solely “public recreation land” downstream to the confluence of the North and South Forks, and (3) as “habitat” downstream from there.¹⁹⁰ With respect to Upper Talarik Creek and adjacent state lands, they are designated (1) as solely “mineral land” within the upper reaches where the Pebble claims and other mining claims are located, and (2) as solely “public recreation land” downstream to Iliamna Lake.¹⁹¹



Map 6. Primary Uses/Land Classifications, Kvichak and Nushagak Drainages, from 2005 BBAP.

To accomplish the ninety-three percent reduction in “habitat”-classified lands from the 1984 BBAP, the 2005 BBAP uses the following

189. See 2005 BBAP, *supra* note 105, at Map 0-5, Land Use Designations (appended to 2005 BBAP digitally at <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>). See generally *id.* at 3-1 to -323.

190. *Id.* at Map 0-5, Land Use Designations (appended to 2005 BBAP digitally at <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>).

191. *Id.*

definition of “habitat” and the following list of “fish and wildlife categories” to determine whether land should be designated and classified as habitat.

B. Allowing Uses in Fish and Wildlife Habitats (Ha). These habitats are defined as Areas [sic] that serve as a concentrated use area for fish and wildlife species during a sensitive life history stage where alteration of the habitat and/or human disturbance could result in a permanent loss of a population or sustained yield of the species.¹⁹² Fish and wildlife categories used to identify “Ha” (Habitat) designations in this plan include the following:

- Anadromous fish spawning and rearing areas in fresh water or brackish intertidal zones
- *Estuaries* important for rearing or schooling of anadromous fish
- *Kelp beds* covering large areas that are important marine nurseries
- *Pacific* herring spawning and rearing concentrations areas
- *Eel grass beds* that are important marine nurseries
- Waterfowl and/or *shorebird* concentration areas
- *Seabird* breeding habitat within each colony area of 500 birds and a two-mile radius around major breeding colonies (more than 20,000 birds)
- Bald eagle nest sites or nest site areas, and known concentrations
- *Sea lion* haulouts and rookeries
- Harbor *seal* haulouts and rookeries
- *Walrus* haulouts and rookeries
- *Sea otter* pupping areas
- Bear concentration areas (including concentrations by season)
- Important wildlife migration corridors, including nearshore migration routes.¹⁹³

This list, and DNR’s application of it, is at the heart of the ninety-three percent reduction in “habitat” classifications, including lands located at, and in proximity to, the Pebble claims and other areas now designated and classified as solely mineral land. DNR’s list and application of it have four significant problems.

First, DNR’s list uses *primarily marine-related* “fish and wildlife categories” to determine whether or not inland uplands *far from the*

192. This definition of “habitat” differs from 11 AAC 55.230, which defines the wildlife habitat land classification category for purposes of land use planning, as follows:

Land classified wildlife habitat is land which is primarily valuable for (1) fish and wildlife resource production, whether existing or through habitat manipulation, to supply sufficient numbers or a diversity of species to support commercial, recreational, or traditional uses on an optimum sustained yield basis; or (2) a unique or rare assemblage of a single or multiple species of regional, state, or national significance.

ALASKA ADMIN CODE tit. 11, § 55.230 (2011).

193. 2005 BBAP, *supra* note 105, at 2-9 (emphasis added).

marine environment, should be designated and classified as "habitat." By this illogical scheme, DNR concludes that few uplands merit "habitat" classification.¹⁹⁴

Second, no type of caribou or moose habitat is included in DNR's list. Yet, for example, the Pebble area has been a caribou calving area in recent years, and DNR continued to recognize it as such in the process that created the 2005 BBAP.¹⁹⁵ Moreover, calving areas are an essential type of caribou habitat,¹⁹⁶ and part of the Upper Talarik drainage is moose winter habitat,¹⁹⁷ which is an essential type of moose habitat.¹⁹⁸

Third, although DNR's list includes anadromous fish areas, DNR's 2005 BBAP applies this criterion *only* to the beds of waters that are navigable under "title navigability" law, which in Alaska means navigable by a boat used by a guide for guiding customers.¹⁹⁹ This has *no relevance* whatsoever to salmon habitat. But the result is that under the 2005 BBAP, only the beds of navigable-for-title anadromous fish waters retained their 1984 "habitat" classification, while the beds of non-navigable-for-title anadromous fish waters, such as Upper Talarik Creek and the upper reaches of the North and South Forks of the Koktuli River, did *not* retain a protective "habitat" designation.²⁰⁰ Accordingly, the beds of non-navigable-for-title anadromous fish streams, including those at or proximate to the Pebble claims and other mineralized areas, lost their prior "habitat" classifications and are now classified solely as mineral land. This is based on DNR's arbitrary practice of using title navigability, which is irrelevant to fish and their habitats, to determine which streams qualify as habitat.

194. *Id.*

195. ALASKA DEP'T OF NATURAL RES., DIV. OF MINING, LAND & WATER, BRISTOL BAY AREA PLAN, PLANNING REGIONS, CARIBOU HERDS AND CRITICAL HABITAT (May 1, 2003) (prepared for the 2005 BBAP).

196. 1984 BBAP, *supra* note 104, at B-1.

197. ALASKA DEP'T OF NATURAL RES., DIV. OF MINING, LAND & WATER, BRISTOL BAY AREA PLAN, PLANNING REGIONS, MOOSE HABITAT (May 1, 2003) (prepared for the 2005 BBAP).

198. 1984 BBAP, *supra* note 104, at B-1.

199. *See* 2005 BBAP, *supra* note 105, at 3-23 to -30 (list of navigable shorelands and designated primary uses of them). As said previously, shorelands are defined by AS 38.05.965(20) as lands beneath waters that are navigable for legal purposes of state ownership under the law of title navigability, by which a state at statehood receives title to the beds of all waters that are navigable, meaning that they are susceptible to commerce at statehood, which in Alaska means navigable by a boat used by a guide for guiding customers. *See State of Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1404-05 (9th Cir. 1989).

200. *See* 2005 BBAP, *supra* note 105, at 3-323 to -330, 3-175. This list of navigable shorelands and classification of them is by "regions" identified in the 2005 BBAP. Upper Talarik Creek is in Region 10 and is not on that portion of the list. Koktuli River is in Region 6.

Fourth, even though Iliamna Lake is navigable,²⁰¹ and even though the state and federal governments have long recognized it as a “principle nursery area” for the Kvichak salmon run,²⁰² the 2005 BBAP retains the prior habitat designation (and therefore classification) only on the eastern half of Iliamna Lake,²⁰³ and eliminates the prior habitat designation and classification for the western half of Iliamna Lake, into which Upper Talarik Creek flows from the Pebble mining claims.²⁰⁴

Then, with respect to recreation, the 2005 BBAP defines “recreation” in a manner that literally “does not refer to . . . sport hunting and fishing.”²⁰⁵ This arbitrary definition raises this question: If sport hunting and sport fishing are not recreation for purposes of land use planning, then what are they?²⁰⁶

Nevertheless, the 2005 BBAP reduces acreage designated and classified as public recreation land by about eighty-seven percent, from about 11 million acres in the 1984 BBAP (always as a co-designation and co-classification with habitat, oil and gas, or minerals),²⁰⁷ to about 1,482,000 acres in the 2005 BBAP²⁰⁸ (of which 768,000 acres are co-classified as habitat, as stated above). Thus, the 2005 BBAP also eliminated the prior designation and classification of “public recreation land” on all lands that are designated and classified solely as “mineral” land under the 2005 BBAP, including those lands located at, and proximate to, the Pebble claims.

201. Iliamna Lake is roughly seventy-five miles long and up to twenty miles wide. *See Division of Land's Navigability Project*, ALASKA DEP'T OF NATURAL RES., <http://dnr.alaska.gov/mlw/nav/> (last visited Jan. 12, 2011).

202. *See, e.g.*, Letter from Governor Walter J. Hickel, *supra* note 30; BLM ANALYSIS, *supra* note 32, at LANDS 1–2.

203. *See* 2005 BBAP, *supra* note 105, at 3-328 (in Region 9, encompassing the eastern half of Iliamna Lake, it is listed as habitat (“Ha”)).

204. *See id.* at 3-328 (in Region 10, encompassing the western half of Iliamna Lake, it is not listed as habitat (“Ha”)).

205. *Id.* at A-11 (the 2005 BBAP defines “recreation” as: “Any activity or structure intended for recreational purposes, including but not limited to hiking, camping, boating, fishing, and sightseeing. ‘Recreation’ does not refer to subsistence or sport hunting and fishing”) (emphasis in original). By contrast, 11 AAC 55.160 defines the “public recreation land” classification category as: “Land classified public recreation is land that is suitable for recreation uses, waysides, parks, campsites, scenic overlooks, hunting, fishing or boating access sites, trail corridors, or greenbelts along bodies of water or roadways.” ALASKA ADMIN CODE tit. 11, § 55.160 (2011). This regulatory definition, like the definition of “recreation” in the 1984 BBAP, includes sport hunting and fishing, while DNR’s definition in the 2005 BBAP emphatically “does not.”

206. Nor does the 2005 BBAP effectively recognize or deal with sport hunting and fishing through its limited habitat designations. As said previously, the 2005 BBAP reduces such designations by ninety-four percent, few uplands received that designation, and the beds of waters that are non-navigable for purpose of legal title did not receive that designation.

207. *See* 1984 BBAP, *supra* note 104, at Map, Primary Land Uses on State Lands.

208. 2005 BBAP, *supra* note 105, at 4-4.

The 2005 BBAP includes a guideline which supplements 11 A.A.C. 55.040(c)²⁰⁹ to state more clearly that a designated primary use takes precedence over an undesignated use:

In management units where a *primary* use has been designated, activities and authorizations pertaining to that primary designated use *may take precedence over other uses* [O]ther uses may also be allowed *if they do not foreclose* the area for its *priority* use. . . . However, if DNR determines that a *use conflict exists* and that the proposed use is *incompatible with the primary use*, the proposed use *shall not be authorized or it shall be modified so that the incompatibility no longer exists*²¹⁰

Thus, on land designated and classified solely as mineral land under the 2005 BBAP, mining takes precedence over habitat. With respect to the State of Alaska's history of seeking to manage uplands to protect fish habitat in the Kvichak and Nushagak drainages, the contrast between the 1984 BBAP and the 2005 BBAP is sharp regarding mining. The 1984 BBAP co-designated areas of mineral potential as habitat/public recreation/mineral land so that under the regulations these three uses were "peers" of each other—none had priority over another. By contrast, the 2005 BBAP designates minerals as the sole primary use of land at or proximate to the Pebble deposit and other deposits. Under the foregoing guideline, mining always takes precedence over other incompatible uses, including fish habitat; commercial, subsistence, or sport fishing and hunting; and public recreation. Based on these and other provisions of the 2005 BBAP, its statements of management intent for the units affected by the Pebble claims are that DNR intends "to accommodate mineral exploration and development" and that Pebble mine "is expected to be authorized."²¹¹ As stated earlier, under 11 A.A.C. 55.030(c)(6), such statements of management intent are DNR "policies."

Finally, contemporaneous with adopting the 2005 BBAP on April 19, 2005, DNR also adopted revisions to the Nushagak-Mulchatna Rivers Recreation Management Plan (2005 Rivers Plan).²¹² Both the 2005 BBAP and the 2005 Rivers Plan revisions severed the lands

209. ALASKA ADMIN CODE 11, § 55.040(c) (2011) ("A classification identifies the *primary use* for which the land *will be managed*, subject to valid existing rights and to multiple use. A land use plan . . . may identify both primary and secondary uses. In addition, the department may authorize other uses that do not conflict with the plan.") (emphasis added).

210. 2005 BBAP, *supra* note 105, at 2-2 to -3 (emphasis added).

211. *Id.* at 3-111, -112, -175 (management intent for Units R06-23 ("Pebble"), R06-24 ("Pebble Streams"), and R10-02 ("Pebble2")).

212. ALASKA DEP'T OF NATURAL RES., NUSHAGAK & MULCHATNA RIVERS RECREATION MANAGEMENT PLAN (2005) [hereinafter 2005 RIVERS PLAN], available at http://dnr.alaska.gov/mlw/planning/mgtplans/nushagak_mulchatna_revision/pdf/trmp_complet_e.pdf.

designated and classified as mineral land under the 2005 BBAP from the 2005 Rivers Plan.²¹³ The revisions also severed the previous link between the 1990 Rivers Plan and the Alaska Coastal Management Program, with the result that the 2005 Rivers Plan is not a plan for an area meriting special attention under the Alaska Coastal Management Program, as the 1990 Rivers Plan had been.²¹⁴

II. A PERSPECTIVE ON THIS HISTORY

Time's glory is to calm contending kings,
To unmask falsehood and bring truth to light,
To stamp the seal of time in aged things,
To wake the morn and sentinel the night,
To wrong the wronger till he render right,
To ruinat proud buildings with thy hours,
And smear with dust their glittering golden towers;

To fill with worm-holes stately monuments,
To feed oblivion with decay of things,
To blot old books and alter their contents,
To pluck the quills from ancient ravens' wings,
To dry the old oak's sap and cherish springs,
To spoil antiquities of hammer'd steel,
And turn the giddy round of Fortune's wheel.

—William Shakespeare, *The Rape of Lucrece*

Part I has demonstrated that, during the entire period from 1967 to the present, the federal and state governments shared and stated a common interest in seeking to conserve fish habitat in the Kvichak and Nushagak drainages, to protect commercial, subsistence and sport fisheries, as it became clear over time that these drainages would be permanently divided up among federal, state, Native corporate and other private land ownerships. And at least from 1967 to 2005, both governments sought to manage *uplands* in these drainages to protect fish, as well as game, and both sought to protect *all waters*, navigable and non-navigable, that produce the fish and fisheries.

213. *Id.* at 1-6; 2005 BBAP, *supra* note 105, at 4-17 (2005 Rivers Plan does not apply to lands designated for mining); *see also* 2005 BBAP, *supra* note 105, at 3-102, -109, -111, -112, -118, -175 (statements of management intent for lands designated solely mineral exclude application of 2005 Rivers Plan in Units R06-03 ("Shotgun"), R06-18 ("Sleitit"), R06-23 ("Pebble"), R06-24 ("Pebble Streams"), R06-36 ("Kemuk")). In 2011, the Alaska Legislature allowed the Alaska Coastal Management Program to "sunset," so it is now repealed. *See* ALASKA STAT. § 46.40 (2012) (identifying each section of 46.40 as repealed). The State now has no program under the federal Coastal Zone Management Act, 16 U.S.C. §§ 1451-1465 (2010).

214. 2005 RIVERS PLAN, *supra* note 212, at 1-3.

A. Balancing Conservation and Development : A Common Interest in Managing Uplands to Conserve Fish Habitat

During the period from 1967 to 1971, when the land was federally owned, and even after the Secretary of the Interior administratively “froze” state land selections in 1966 pending resolution of Native land claims, the State encouraged federal land use planning to protect uplands as necessary to protect fish. Typical of this period are: (1) the State’s and Governor Hickel’s “enthusiastic” support for BLM’s 1967 6.5-million-acre land classification, which closed substantial portions of Iliamna Lake/Kvichak River drainage to new mining claims, although mineral exploration was occurring, and closed nearly all of that area to state land selections; (2) the Alaska Senate’s resolution opposing the road route from Inishkin Bay to Iliamna (which is now the proposed route to Pebble) out of concern for fish and game habitat; and (3) the unanimous votes of the Alaska Senate and of the Alaska House of Representatives for resolutions that “urgently requested” the federal government “to manage the Kvichak, Naknek, Egegik, and Alagnak watersheds in a manner designed to give primary recognition to the extremely valuable commercial and sport fishing resources existing there.”²¹⁵

During the period from 1971 to 2005, the state and federal governments remained committed to managing uplands in the Bristol Bay drainages to protect fisheries, although mineral potential was long known to exist. Both the Department of the Interior and the State recognized that as the pattern of land ownership became fragmented during the 1970s, cooperative planning would be necessary because fish and wildlife ignore distinctions in land ownership. However, differences emerged between the State and federal governments over how to best balance conservation and development, while seeking to manage uplands as necessary to protect fish. The State sought and acquired federal lands in order to protect fish, including lands where the Pebble claims now are located, and sought cooperative land use planning to address fragmented ownership. The Secretary sought to retain the remaining federal lands, establish a wildlife refuge, and pursue cooperative planning in that context. However, these differences remained divorced from any governmental decision related to a specific development project that might have practical effects on fish, wildlife, or public uses of them.

Eventually Congress agreed to the State’s position, and enacted Section 1203 of ANILCA.²¹⁶ In effect, both the state and federal

215. See S.J.R. 4, 7th Leg. (Alaska 1971); H.J.R. 16, 7th Leg. (Alaska 1971); *supra* text accompanying notes 37–39.

216. ANILCA, Pub. L. No. 96-487, § 1203, 94 Stat. 2371, 2470–72 (1980) (codified at 16 U.S.C. § 3183).

governments had concluded that they needed cooperative land use planning between state, federal, and Native entities and interests, similar to what New York State had achieved in the Adirondacks,²¹⁷ to manage lands across land ownership boundaries. However, this conclusion still existed in the abstract because no entity had yet confronted a specific major proposed project that would force a choice between habitat conservation and public uses versus permitting the project.

Hence, Section 1203 of ANILCA put the first two purposes of this cooperative planning—that is, (1) to conserve the fish and wildlife and other significant natural and cultural resources within the region and (2) to provide for the rational and orderly development of economic resources within the region in an environmentally sound manner—on an equal footing. This, too, was divorced from any potential project that could constitute a major threat to fish and wildlife, or the public uses of them. In such an abstract situation, cooperative planning for conservation and development across fragmented land ownerships, which lack meaning for fish and wildlife, demanded help from the better angels of our nature to look first to fish before looking at ownership. However, when these angels failed to appear, so too did cooperative planning.

When cooperative planning failed in 1984, the State adopted the 1984 BBAP that resulted in classifying or co-classifying all state land as habitat.²¹⁸ The fact that DNR's land use planning regulations lacked a land classification category for land used primarily for *subsistence hunting and fishing*, when there is a public recreation land category for land use primarily for *sport hunting and fishing*, had little or no practical effect because the habitat classifications required that virtually all the affected land be retained and managed as habitat.

However, from 2005 to the present, DNR's 2005 Bristol Bay Area Plan flies in the face of all the prior history. This is most evident in the falsehoods DNR employs in its 2005 BBAP: (1) it uses primarily marine-related "fish and wildlife categories" to avoid identifying inland uplands far from the marine environment as habitat, which thereby eliminates ninety-three percent of the prior habitat classifications on inland uplands, including lands at and in proximity to mineral deposits; (2) it applies the habitat designation only to the beds of waters navigable for purposes of title, to eliminate prior habitat classifications on non-navigable waters such as those within the Pebble mining claims; and (3) it defines "recreation" to exclude sport hunting and fishing, to eliminate

217. See *supra* text accompanying notes 127–29.

218. See *supra* text accompanying notes 154–59.

most prior classifications of land as public recreation land, including at the Pebble mining claims.²¹⁹

These false methods demonstrate the difficulty of permitting a mine like Pebble mine in a place like the Bristol Bay drainages without putting “fingers on the scale,” even though doing so is contrary to the State’s long history of recognition that such mines and ill-placed roads in the Bristol Bay drainages can adversely affect fish, wildlife, and public uses of them. Moreover, when the 2005 BBAP reduced the acreage designated and classified as habitat by ninety-three percent, and reduced the public recreation land acreage by eighty-seven percent, *then* the lack of a “subsistence” land use classification category assumes critical significance for subsistence and recreational users alike because both groups benefit from any land classification that retains and manages land for any reason related to hunting, fishing, or habitat.

Two facts may explain why DNR’s 2005 BBAP departs from the prior history. First, by 2005, DNR had recognized both the potential of a Pebble mine and the difficulty of permitting it. So, the 2005 BBAP uses methods that put fingers on the scale, as said above. Second, in November 2002, Alaskans had elected Frank Murkowski as governor. He had been a banker, Alaska’s Commissioner of Economic Development, and President of the Alaska Chamber of Commerce prior to serving as Alaska’s junior U.S. Senator from 1981 to 2002. He served in the Senate *after* Congress enacted ANCSA in 1971, the Cook Inlet Land Exchange in 1976, and ANILCA in 1980.²²⁰ He had not been a state official involved in the State’s history of efforts to conserve the Kvichak and Nushagak drainages from 1967 to 2000,²²¹ or a federal official involved in the federal history of such efforts from 1967 to

219. See *supra* text accompanying notes 182–211. Based on the 2005 BBAP, NDM asserts that the land is “specifically designated for mineral exploration and development.” *Path to Development*, NORTHERN DYNASTY MINERALS, <http://www.northerndynastyminerals.com/ndm/Path.asp> (last visited Jan. 11, 2012). That designation rests upon tenuous devices such as (1) arbitrarily using primarily marine criteria to avoid identifying, designating and classifying inland uplands as habitat, (2) arbitrarily defining “recreation” to exclude sport hunting and fishing, and (3) arbitrarily applying the law of title navigability to determine whether anadromous streams qualify as habitat.

220. See *Frank H. Murkowski*, BIOGRAPHICAL DIRECTORY OF THE UNITED STATES CONGRESS, <http://bioguide.congress.gov/scripts/biodisplay.pl?index=m001085> (last visited Jan. 24, 2012).

221. See *supra* text accompanying notes 30–33, 37–40, 73, 94–101, 128–30, 138, 151–52, 154–67, 169–81 (e.g., (1) State support for BLM’s 1967 classification, (2) S. Res. 14, 6th Leg. (Alaska 1970), (3) S.B. 384, 6th Leg., 2d Sess. (Alaska 1970), (4) S.J.R. 4, 7th Leg. (Alaska 1971) and H.J.R. 16, 7th Leg. (Alaska 1971), (5) enactment of the Bristol Bay Fisheries Reserve, (6) State acquisition of uplands to protect fish through Cook Inlet Land Exchange, (7) State support of a Bristol Bay Cooperative Region in ANILCA, (8) the 1984 BBAP, (9) MCO No. 393, and (10) the Policy for the Management of Sustainable Salmon Fisheries).

1980.²²² Because he was never part of the state or federal history, and apparently understood neither, he became the antithesis to Blackstone's "time whereof the memory of man runneth not to the contrary."²²³ That is, the false methods of the 2005 BBAP for which Governor Murkowski is ultimately responsible run *contrary to history*. Similarly, any public official who is contrary to the entire history becomes vulnerable to all who know it. Therefore, history fosters stability of a 404(c) determination across future federal administrations.

B. Resolving Issues Raised by Metallic Sulfide Mines and Fragmented Land Ownership

From 2005 to the present, the prospect of mining metallic sulfide deposits in these drainages has brought the state government (in the form of its 2005 Bristol Bay Area Plan) and the federal government (in the form of the EPA's watershed assessment and potential use of Section 404(c)), closer to making practical concrete decisions between the "contending kings"—fish and minerals. Such state and federal actions, although short of agency adjudications of specific permit applications, do relate to specific, potential metallic sulfide mines, such as Pebble mine, and their effects on fish and wildlife habitat.

Viewed from historical perspective, the State's 2005 BBAP appears to be, in several respects, an aberration—an action completely inconsistent with all that had gone before. It departs from all the State's prior efforts, lasting from 1967 to 2005, through which the State gave primary recognition to valuable commercial and sport fishing resources, acquired uplands in the Kvichak and Nushagak drainages including at Pebble to protect fish, and adopted measures to protect fish and fisheries.

Conversely, and also viewed from historical perspective, EPA's scientific assessment and potential use of Section 404(c) are consistent with the long history of common federal and state efforts to protect inland uplands related to fisheries in the Kvichak and Nushagak watersheds, particularly in the context of fragmented land ownership.²²⁴ Moreover, EPA's assessment and potential use of Section 404(c) are consistent with state policy, that is, the following "principles and

222. See *supra* text accompanying notes 25–29, 32, 42–61, 67–71, 74–80, 127–34, 140–45, 150–51 (e.g., (1) BLM's 1967 classification, (2) BLM's 1971 Iliamna Unit Resource Analysis, (3) ANCSA, § 17(d)(2), (4) the Cook Inlet Land Exchange, (5) the nearly decade-long history and enacted provisions of ANICLA).

223. 1 WILLIAM BLACKSTONE, COMMENTARIES *67.

224. As said previously, EPA's authority under Section 404(c) is well-tailored to protecting fish, wildlife, and waters which disregard land ownership boundaries. See discussion *supra* Intro.

criteria” in the State’s Policy for the Management of Sustainable Salmon Fisheries:

(1) “[S]cientific assessments of possible adverse ecological effects of proposed habitat alterations and the impacts of the alterations on salmon populations should be conducted before approval of a proposal . . .”²²⁵

(2) “[A]ll essential salmon habitat in marine, estuarine, and freshwater ecosystems and access of salmon to these habitats should be protected; essential habitats include *spawning and incubation areas*, *freshwater rearing areas*, estuarine and nearshore rearing areas, offshore rearing areas, and *migratory pathways* . . .”²²⁶

(3) “[S]almon habitat in fresh water should be protected on a *watershed* basis, including appropriate management of riparian zones, water quality, and water quantity . . .”²²⁷

(4) “[S]almon stocks should be protected within *spawning, incubating, rearing, and migratory habitats* . . .”²²⁸

(5) “[I]n the face of uncertainty,” “essential habitats shall be managed *conservatively*” through “a *precautionary approach* involving the application of *prudent foresight* that takes into account the *uncertainties* in salmon fisheries and habitat management,” “*prior* identification of undesirable outcomes and of measures that will *avoid* undesirable outcomes,” and this “precautionary approach should be applied to the regulation of *activities that affect essential salmon habitat*.”²²⁹

As governments and citizens face increasingly concrete decisions having real consequences related to metallic sulfide mining in the Kvichak and Nushagak drainages, informed decisions will require that governmental officials and the public (1) know and understand the facts of what is certain, (2) receive the best information available about what is uncertain, and (3) use methods of addressing uncertainty, such as the “precautionary approach” embraced by the Board of Fisheries²³⁰ and the 404(b)(1) Guidelines which EPA uses in making Section 404(c) determinations, including prior to permit applications.²³¹ This approach

225. ALASKA ADMIN. CODE tit. 5, § 39.222(c)(1)(A)(ii) (2011) (emphasis added).

226. *Id.* § 39.222(c)(1)(A)(iv) (emphasis added).

227. *Id.* § 39.222(c)(1)(A)(v) (emphasis added).

228. *Id.* § 39.222(c)(1)(B) (emphasis added).

229. *Id.* § 39.222(c)(5) (emphasis added).

230. *Id.*

231. *See supra* note 12 (EPA considers relevant portions of the 404(b)(1) Guidelines in determining “unacceptable adverse effect”). The Guidelines, at 40 C.F.R. § 230.12(a)(3)(iv) (2011), provide that a discharge must be specified as failing to comply with the Guidelines where “[t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.”

reflects the time-honored wisdom of the principle of “Socratic ignorance.” It is the principle that it is *wiser* to know what one does not know, than it is to believe that one knows what one does not know.

Here, the principles of Socratic ignorance, the precautionary approach, and the 404(b)(1) Guidelines serve everyone involved—regardless of whether one is a proponent or opponent of metallic sulfide mines in these drainages, or a federal, state, local, or tribal official, or a member of the greater public. All share a need to understand what is known and the limitations of what is uncertain about such mines. That explains why, throughout this history, the state and the federal governments have generally given “primary recognition” to the fishery resources of the Bristol Bay area, ahead of mining, roads, and intensive development that could jeopardize the fisheries, and acted accordingly.

To be decisive about whether metallic sulfide mining and perpetual care in the Kvichak and Nushagak drainages are likely to have an “unacceptable adverse effect,” EPA should elucidate what is known, and use the precautionary approach of the 404(b)(1) Guidelines in evaluating what is uncertain, in order to identify for purposes of Section 404(c) what is reasonably likely to occur over time.²³² Doing so is consistent with the regulatory definition of “unacceptable adverse effect,” which is stated in terms of an impact which is “likely” to result in “significant degradation” of resources and uses protected by Section 404(c).²³³

As EPA has stated in the preamble to its Section 404(c) regulations,²³⁴ using Section 404(c) proactively, prior to permit applications, facilitates comprehensive wetlands conservation and planning by developers and by industry so that they can avoid frustrating

232. EPA would be wise to incorporate the precautionary approach or principle into a Section 404(c) document. That approach or principle can be useful for (1) determining whether an application meets the restrictions imposed by a Section 404(c) determination, and (2) establishing a high standard for determining whether to modify a Section 404(c) determination once it is in place, and thereby improve the stability of the Section 404(c) determination.

233. 40 C.F.R. § 231.2(e) (2012).

234. Denial or Restriction of Disposal Sites; Section 404(c) Procedures, 44 Fed. Reg. 58,076 (Oct. 9, 1979). Although the Pebble Limited Partnership has spent substantial funds exploring the Pebble claims, neither it nor others have done so with respect to other metallic sulfide deposits allegedly in the vicinity. Conversely, if EPA were to wait for PLP to apply, then PLP (and in effect all claimants) will control the timing of future events, and EPA will have taken a piecemeal approach. In that event, PLP and others will remain in the uncertain position they are in now with respect to other deposits and Section 404(c). Thus, simply waiting is counter-productive to a comprehensive approach, and invites Section 404(c) issues to occur *repeatedly* in the future if PLP or others seek to develop their mining claims. It is difficult to envision a more appropriate circumstance for “advance prohibition” than this concrete situation in the Bristol Bay drainages. Recalling EPA’s explanation in the 1979 preamble to the final Section 404(c) regulations, *supra* note 13, is informative. What was abstract “theory” then is specific now, because the magnitude of “X” in the Kvichak and Nushagak drainages is huge. *See supra* note 13.

situations in which someone spends time and money developing a project that is inappropriate, and thus should not be permitted. However, because a Section 404(c) determination is an executive branch action, it is short of more comprehensive land use planning for conservation and development across land ownership boundaries ignored by fish and wildlife, and it cannot address the status or validity of mining claims for metallic sulfides that may—practically and legally speaking—simply be undevelopable. One inescapable fact is that after years of efforts, the Pebble Limited Partnership has yet to produce a design for mining the Pebble deposit safely.

If these mining claims ultimately cannot be developed safely, then government (state or federal) should challenge their validity.²³⁵ And if a compensable interest is in dispute, then either government should seek a negotiated governmental purchase. Such a purchase would presumably be at a portion of invested value if the claims are undevelopable. Nevertheless, because any government would be ill advised to purchase existing mining claims on ground that could be restaked with new mining claims, such a purchase would depend on the Alaska Legislature enacting legislation that (1) closes the area (or much of it as BLM did and the State supported in 1967) to new mining claims, at least for metallic sulfides; (2) establishes the purposes for which the land will be managed, by requiring that it be managed to protect fish and game habitat, and to protect public uses of fish and game; and (3) allows other uses, such as mining preexisting claims, only if compatible with these purposes, so as to give “primary recognition” to the fish, game and public uses of them.

The facts of what is known (e.g., about the fish and wildlife and uses of them) and what is likely (e.g., the risks posed by metallic sulfide mining) should eventually demand such legislation, because the risks are now more concrete than in the past. In the event of such legislation, both the federal and state governments should participate in funding a buyout of existing mining claims on the metallic sulfide deposits.

Furthermore, for at least five reasons, comprehensive and cooperative land use planning across land ownership boundaries may be more likely to succeed now in the Kvichak and Nushagak drainages, than in the early 1980s when such planning was attempted for all the Bristol Bay drainages. First, the land ownership pattern in the Kvichak and Nushagak drainages has reconsolidated to some extent. It has evolved

235. For a mining claim to be valid, it must ultimately pass the “marketability test.” See *United States v. Coleman*, 390 U.S. 599, 602–03 (1968). This test requires the claimant to show that the minerals can be extracted at a profit, *id.*, which may not be possible if they cannot be developed safely.

from (1) nearly total federal ownership before 1971, to (2) a highly fragmented pattern of federal land, state selections, and withdrawals for Native corporate selections in the 1970s, when the Iliamna refuge would have been fifty percent federally owned and fifty percent nonfederal inholdings, to (3) overwhelmingly state ownership of uplands, substantial Native ownership along some rivers, and decreased federal ownership. This reconsolidation may facilitate cooperative comprehensive land use planning.

Second, metallic sulfide mining presents concrete issues involving direct, indirect, and cumulative impacts. These issues bring focus and demand governmental responses, based on what is known and what is likely. This is a significant contrast to previously abstract issues divorced from any particular project. The concrete nature of issues presented by metallic sulfide mining may also facilitate comprehensive planning.

Third, the issues are now focused specifically on the Kvichak and Nushagak drainages, rather than on all the Bristol Bay drainages as occurred in the early 1980s. The current, narrower, geographic focus may also facilitate cooperative comprehensive planning in these two drainages.

Fourth, the role of tribes in cooperative land use planning is potentially much greater and more helpful than it was in 1980, when Congress enacted sections 1201 and 1203 of ANILCA, which afforded a role for Native regional corporations, but none for tribes. Since then, two events have occurred that offer a potential role for tribes. (1) In 1994, Congress enacted the Federally Recognized Indian Tribe List Act, which requires the Secretary of the Interior to publish annually in the Federal Register a list of federally recognized tribes.²³⁶ This has led to listing Native tribal entities in Alaska for virtually every Native village in Alaska, including those in the Kvichak and Nushagak drainages.²³⁷ (2) On November 6, 2000, President Clinton issued Executive Order 13,175.²³⁸ It requires all federal agencies to consult and coordinate with tribes on “policies that have tribal implications.”²³⁹ Land use is such a policy. Thus, federal participation, either as a land manager such as DOI, or regulatory agency such as EPA, in any future cooperative land use planning process for the Kvichak and Nushagak drainages will trigger the consultation and coordination requirements of Executive Order 13,175 and the government-to-government relationship that the United

236. 25 U.S.C. § 479a-1 (2010).

237. *See* Indian Entities Recognized and Eligible to Receive Services, 75 Fed. Reg. 60,810, 60,813–14 (Oct. 1, 2010).

238. Exec. Order No. 13,175, 65 Fed. Reg. 67,249 (Nov. 6, 2000).

239. *Id.*

States has with tribes.²⁴⁰ This also may facilitate public cooperative comprehensive land use planning among governmental entities, Native corporations, and associated tribes.

Fifth, perhaps most important, local interests in these drainages, such as Native corporations, tribes, and others, have moved forward with cooperative conservation efforts, and have recognized that fragmented land ownership and management is problematic for salmon. The Native village corporation for Dillingham, Alaska, that is, Choggiung Ltd., spearheaded the formation of the Nushagak-Mulchatna-Wood-Tikchik Land Trust, which has focused on acquiring or conserving Native allotment lands at critical locations on rivers and that would otherwise be sold.²⁴¹ The Southwest Alaska Salmon Habitat Partnership is a “Fish Habitat Partnership” which operates through a steering committee composed of Native, governmental, and conservation representatives²⁴² under the National Fish Action Plan, which is a program that joins governmental agencies with nongovernmental interests to protect fish habitat.²⁴³

Since 2001, the Southwest Alaska Salmon Habitat Partnership has acquired approximately 94,000 acres of high value salmon habitat for conservation throughout southwest Alaska at the cost of \$14.9 million, including a 21,000-acre conservation easement on village corporation lands in the Wood-Tikchik State Park.²⁴⁴ The Native Village of Koliganek formed its own salmon reserve on village corporation lands.²⁴⁵ In addition to these direct means to conserve uplands and riparian lands important for salmon, the tribes, local governments, and Native corporations formed the Nushagak-Mulchatna Watershed Council in 1998. It has produced a “Nushagak Watershed Strategic Conservation

240. *Id.*

241. See *Our Mission*, NUSHAGAK-MULCHATNA WOOD-TIKCHIK LAND TRUST, <http://www.nmwlandtrust.org/who/mission.php> (last visited Jan. 11, 2011).

242. The steering committee is composed of representatives of the Nature Conservancy, the Nushagak-Mulchatna/Wood-Tikchik Land Trust, the U.S. Fish & Wildlife Service, the Alaska Department of Fish & Game, the Conservation Fund, the Bristol Bay Native Association, and the Bristol Bay (Regional) Native Corporation. See SOUTHWEST ALASKA SALMON HABITAT PARTNERSHIP, STRATEGIC CONSERVATION ACTION PLAN FOR BRISTOL BAY WATERSHEDS 3 (2011), available at <http://www.swakcc.org/documents/SWASHP%20Strategic%20Plan%20-%20Draft%20Final.pdf>.

243. See NATIONAL FISH HABITAT ACTION PLAN, <http://fishhabitat.org/> (last visited Jan. 23, 2012).

244. See SOUTHWEST ALASKA SALMON HABITAT PARTNERSHIP, *supra* note 242, at 9.

245. See Bay Times Staff, *Koliganek Creates Wild Fish Reserve*, BRISTOL BAY TIMES, Dec. 3, 2009, at 3, [http://www.nature.org/ourinitiatives/regions/northamerica/united states/alaska/baytimesknlreserve12-3-09.pdf](http://www.nature.org/ourinitiatives/regions/northamerica/united%20states/alaska/baytimesknlreserve12-3-09.pdf).

Plan,”²⁴⁶ and “Standards and Practices for Environmentally Responsible Mining in the Nushagak River Watershed,” including a standard that no mine should be permitted that requires perpetual care “to avoid environmental contamination.”²⁴⁷

These successful local efforts indicate that the federal and state governments, which failed at cooperative planning in 1984, should look beyond the immediate situation and Section 404(c) to the future. As part of its watershed assessment and any Section 404(c) determination, EPA should state the limitations of executive branch action under Section 404(c) and the need for all interests to reinvigorate the type of cooperative land use planning and conservation efforts sought originally by Governor Hammond and by Congress in Section 1203 of ANILCA. Reinvigorating that type of process may provide (1) a basis for recommending state legislation necessary to achieve a negotiated purchase by the federal and state governments of existing metallic sulfide claims, based on some portion of invested value, and (2) a decisiveness about whether fish come first, whether metallic sulfide mining is incompatible with fish and other public interests, and whether the precautionary approach helps to address what BLM long ago saw as the risk of incremental, “seemingly minor” habitat losses, which cumulatively have great effect.

If EPA invokes Section 404(c) and concludes that metallic sulfide mining and perpetual care are incompatible with protecting habitat and public uses of fish and game that are subject to protection under Section 404(c), then EPA’s action may lead to an opportunity for government and the public to achieve comprehensive planning for conservation and development across multiple interests and land owners in the Kvichak and Nushagak drainages. Then, the increasingly concrete nature of the issues, now before governments and the public because of the prospect of metallic sulfide mining, should help to get the balance between conservation and development “right” in these drainages, where fish and wildlife traverse property boundaries. This may require a mixture of cooperative planning, federal assistance, state commitment, interest group participation, tribes working with Native corporations, and incentives for village corporations to participate and conserve riparian lands, as Koliganek has done.

246. NUSHAGAK-MULCHATNA WATERSHED COUNCIL, NUSHAGAK RIVER WATERSHED TRADITIONAL USE AREA STRATEGIC CONSERVATION PLAN (2007), *available at* http://www.nature.org/idc/groups/webcontent/@web/@alaska/documents/document/prd_01_7469.pdf.

247. NUSHAGAK-MULCHATNA WATERSHED COUNCIL, STANDARDS AND PRACTICES FOR ENVIRONMENTALLY RESPONSIBLE MINING IN THE NUSHAGAK RIVER WATERSHED 6 (2011).

III. CONCLUSION

In this entire history, three points are clear. First, except for the aberrational 2005 BBAP, the state and federal governments, and many local interests, have long shared and acted upon a common understanding that it is necessary to conserve *uplands* to protect *fish* in the Kvichak and Nushagak drainages.

Second, the opportunities for *successful* governmental action to do so, across property boundaries ignored by fish and wildlife, do not happen often. Hence, EPA's opportunity to use Section 404(c) across such boundaries is probably the best opportunity to conserve important uplands that are within Section 404(c) jurisdiction in these drainages (e.g., anadromous and non-anadromous waters and wetland riparian zones), since the 1967-to-1971 period, when the federal government still owned nearly all the land. In fact, given the various large, metallic sulfide deposits in the area, it is hard to envision that these drainages can remain as productive as they are, absent a 404(c) determination. EPA would be wise to understand that making a 404(c) determination stable across future administrations requires more than science. Doing so also requires understanding history, law in addition to 404(c), even literature, and being able to use all to conserve these drainages.

Third, nothing in this entire history draws the distinction between conservation and development in these drainages more clearly than this choice:

(1) Should government "stay the course" of the many prior efforts by the state and federal governments to give "primary recognition" to fish, wildlife, and public uses in these drainages by invoking Section 404(c) to restrict or prohibit mining the metallic sulfide deposits?; or

(2) Should government depart from that course by permitting such mines, based substantially on the radical aberrations of the 2005 BBAP?

This choice between two "contending kings" "unmasks falsehood," "brings truth to light," and "turns the giddy round of Fortune's wheel." The choice is easily understood, concrete, not abstract or divorced from an actual potential project. This choice reflects different ways of dealing with uncertainty and the limitations that agencies and stakeholders face regarding metallic sulfide mining in the Kvichak and Nushagak drainages. This choice draws out the fundamental distinction between erring on the side of conservation, and erring on the side of development. And unlike previously abstract choices, this choice does not require an appearance by the better angels of our nature.